





RENAUDOT  
DISCOURSES













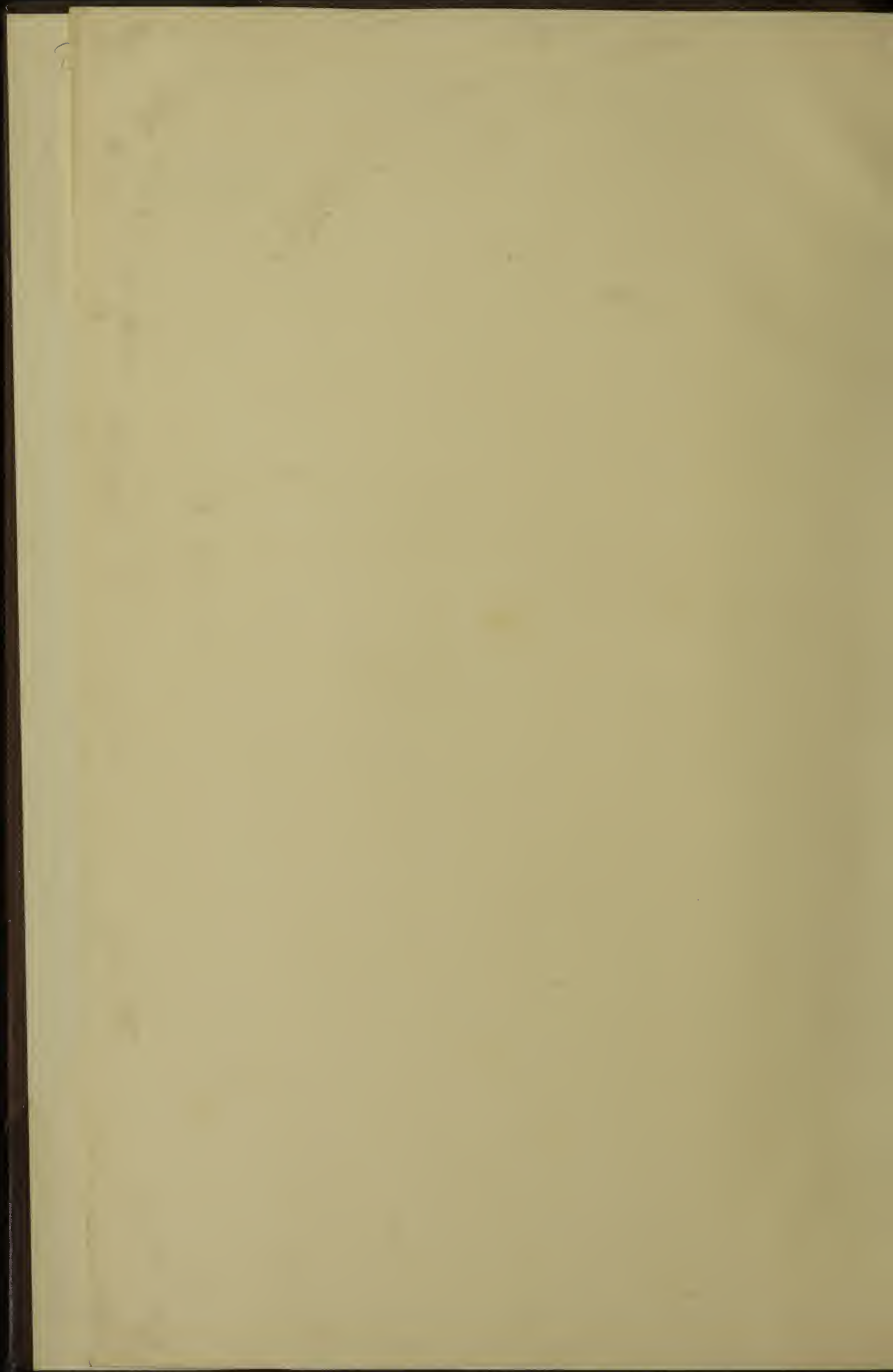
Suppl D /eur

Bureau d'adresse et de recherche  
(Paris)

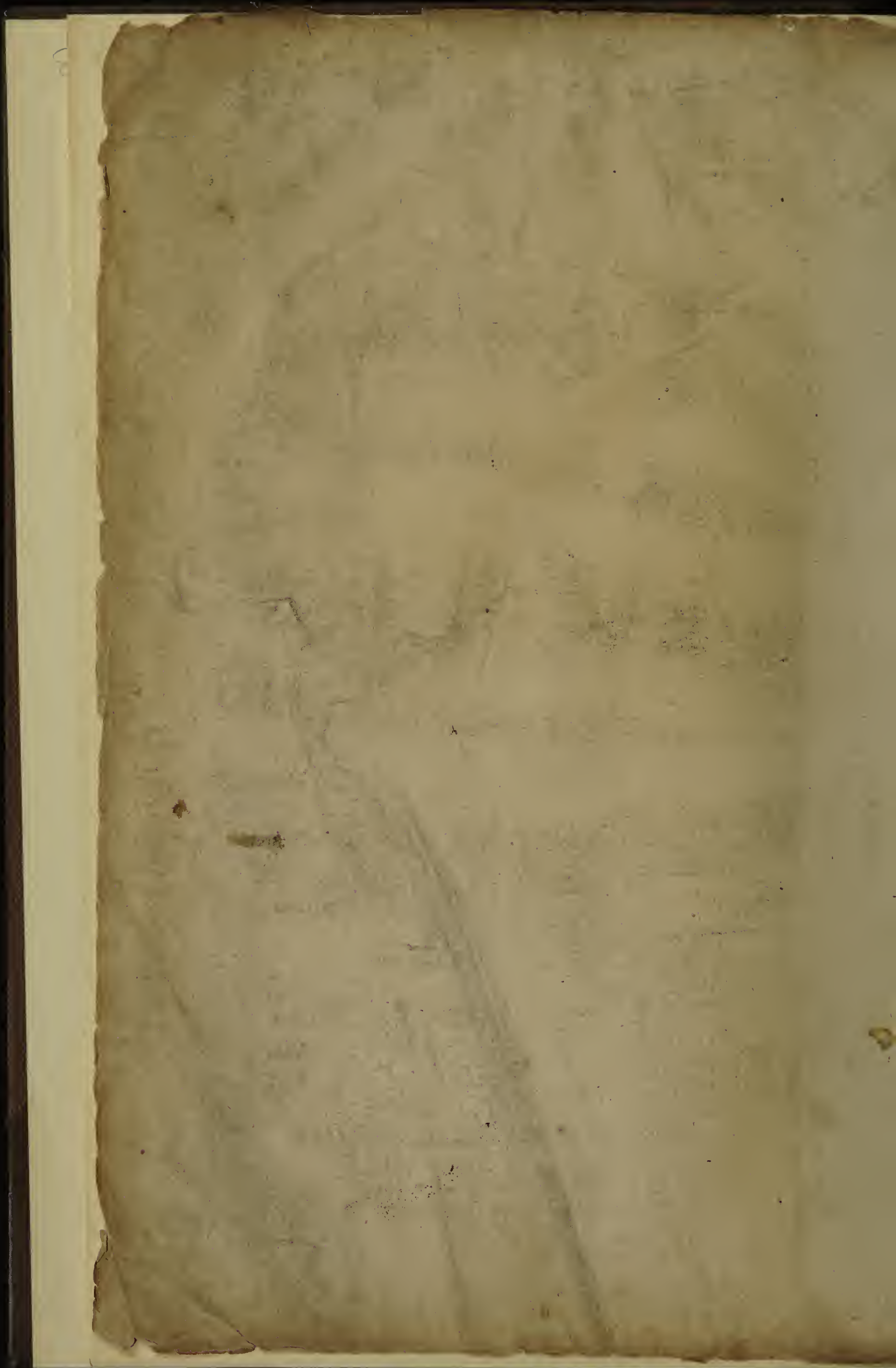
60302/D













A  
General Collection  
OF  
DISCOURSES  
OF THE  
Virtuosi of France,  
Upon Questions of all Sorts of  
PHILOSOPHY,  
AND OTHER  
Natural Knowledg.

Made in the Assembly of the *Beaux Esprits* at  
*Paris*, by the most Ingenious Persons  
of that Nation.

---

*Render'd into English by G. HAVER'S, Gent.*

---

LONDON,  
Printed for Thomas Dring and John Starkey, and are to be  
sold at their Shops, at the George in Fleet-street near  
Clifford's-Inn, and the Miter between the Middle-  
Temple-Gate and Temple-Bar. 1664.

390862

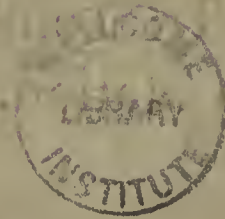
White House, Washington

27 37 11 13 24

Sup. of the District

CHAS. O. B. H.

Belmont, D.C.



Washington, D.C.

Very respectfully,  
Chas. O. B. H.



To the Honourable

ANCHITELL GRAY, Esq;



*If it be compliance with Custom that induces me to a Dedication of the ensuing Discourse, 'tis obedience to Reason that moves me to inscribe them to your Honourable Name. They are the ingenious Productions of the most accomplish'd Gentlemen of our Neighbour-Nation, and so could not be more fitly presented then to One of our Own, who to the advantages of a most Illustrious Descent, hath conjoyn'd whatever is particularly excellent in Many. That celebrated Aphorism of Plato, which pronounceth Felicity to that State wherein either the Philosophers are of chief dignity, or those of chief dignity are Philosophers, holds no less true in the Commonwealth of Learning then in Political Governments. Arts and Sciences, when cultivated by Persons of quality, not only derive lustre from the rank of their Professors, but acquire enlargement of Territory by their Conduct: Heroick souls disdaining the enslaving formalities practis'd hitherto by the Sovereigns of the Schools, and by the restauration of Freedom, laying open the way to Conquest. I shall not undertake to determine whether the restitution of Philosophical Liberty began first by the French, or by some great Personages of our own, particularly the renowned*



## The Epistle Dedicatory.

*Lord Bacon (from whom 'tis said, not improbably, their Des-Cartes took the grounds of his new Theory) but 'tis certain that his way of Experiment, as now prosecuted by sundry English Gentlemen, affords more probabilities of glorious and profitable Fruits, then the attempts of any other Age or Nation whatsoever. But as it would be a fault in me to insist upon Comparisons, so it will be an injury in such as shall think you, Sir, any way concern'd in these Discourses, either upon the account of their Matter or Translation. 'Tis true, they are extreamly well fitted both for Instruction and Pleasure, they handle weighty Questions with great facility; and what would be a load in the ordinary modes of Writing thereupon, is here as fully and substantially deliver'd, and yet with exceeding Elegancy and perspicuity; but however commendable in themselves, 'twere criminal to think that you need them; but, on the contrary, I well understood that the Book needed you, and therefore I must humbly beg your pardon, if I have herein been too forward for its Interest by this Dedication, as also for my own in taking upon me so publickly the quality of,*

Sir,

Your most humble and obedient  
Servant,

G. HAVERS.



---

*The Publisher of the Ensuing Conferences,*

---

**T**Hinks it his Duty to advertise the Ingenious Readers, I. That they are the Productions of an Assembly of the Choicest Wits in *France*, whose design it was to rescue the Liberal Sciences from the bondage of *Scholastical* Obscurities, and to render *Things* intelligible without obliging the studious to the unpleasing and perpetual Task of first surmounting the difficulties of *Exotick Words*. To which purpose they judg'd fit to establish this as a principal Law of their Discourses, That onely the French Language should be us'd therein, in order to cultivate and improve the same; and this, in imitation of the Greeks and Romans, whose writings are abundant evidences of the same Practice. II. That amongst the Arguments for the several Opinions upon each Question, it was thought fit to wave the alledging of *Authorities*, except upon some very special occasion. It being observ'd, that the heaping Testimonies together serves commonly for *Ostentation* rather than *Strength*; and, (to omit the consideration of Brevity) if any man speaks Reason; it ought to suffice without anothers Authority to recommend it. Besides, that Nothing hath been found more prejudicial to the *Improvement* of Philosophy, then the attributing too much to the Magisterial *Sayings* of an Author of Great Name. In which regard likewise, these *Virtuosi* have acted with no less *Prudence* then *Modesty*, in leaving the Determination of each Question to the judgement of the Reader, who is made the *Arbiter* of the Dispute, and may, in the grateful *Variety* of Opinions, freely give his suffrage to *That* which shall seem to him founded upon the most convincing Reasons; or else having them all before him, establish a better of his own. III. That these Gentlemen, leaving the way of arguing by *Mode* and *Figure* to *Colledges*, have chosen to propose their sence in the *freest* and most *natural* form of Speech, as being most sutable to Conferences, and less subject either



---

*To the Reader.*

---

ther to the captious fallacies, or pedantical janglings and heats, resulting from Disputes by *Syllogism*. To avoid which also the better, care was taken that every one might have this Perswasion, That he was no-wise interested to maintain his *Sentence* upon any Point; but being once produc'd, it was as a thing expos'd to the company, and no more accounted any mans *Property*, then *Truth* it self, the *common* subject of all their Inquiries. I V. That, as to the Promiscuous Variety of the Questions discuss'd in each Conference, and the immethodical series of them all, if it be not excuse enough that the Discourfers were *French* Gentlemen, and besides, willing in civility to gratifie one another by leaving the choice of *Subjects* free, the Reader is desir'd to believe, that there wanted not particular occasions for every one, though they appear not upon the paper. Besides, that it seem'd most expedient not to be confin'd to the Laws of *Method*, since the Compliance therewith in comprizing the Sciences in *Systems* and *Bodies*, (as they call them) would have requir'd the intermixture of many Questions less considerable and delightful; and indeed is found by Judicious Men to have been a great Obstacle to the *Improvement* of Philosophy. V. Lastly, The Publisher craves Pardon of the Readers that he hath forborn to divulge the Names of the Persons of Honour, who held these Conferences weekly on *Mondays* at *Paris*, it being the principal condition which they requir'd of him; Some, that the judgement of their opinions might be left free to every one, which the knowledge of the Authors commonly prepossesses; and Others, out of desire secretly to discover what Sentiment the publick would have of theirs (like the Knights Errant of old, who fought under borrow'd Arms) leaving their Names to be conjectur'd by such as found any thing in them for which to desire it: but All, through a Modesty as commendable in respect of themselves, as injurious to the Publick.

EUSEBIUS RENAUDOT, *Counsellor and*  
*Physitian in Ordinary to the King of France, Doctor*  
*Regent of the Faculty of Physick at Paris.*



# THE CONTENTS.

	Page
CONFERENCE I.	
I. <i>O</i> f Method. II. <i>O</i> f Entity.	1
CONFERENCE II.	
I. <i>O</i> f Principles. II. <i>O</i> f the End of all Things.	5
CONFERENCE III.	
I. <i>O</i> f Causes in general. II. <i>W</i> hence it is that every one is zealous for his own Opinion, though it be of no importance to him.	12
CONFERENCE IV.	
I. <i>O</i> f the First Matter. II. <i>O</i> f Perpetual Motion.	18
CONFERENCE V.	
I. <i>O</i> f Resemblance. II. <i>W</i> hether it behoveth to joyn Armes to Letters.	24
CONFERENCE VI.	
I. <i>O</i> f Fire. II. <i>O</i> f the Universal Spirit.	31
CONFERENCE VII.	
I. <i>O</i> f the Air. II. <i>W</i> hether it be best for a State to have Slaves.	38
CONFERENCE VIII.	
I. <i>O</i> f Water. II. <i>O</i> f Wine, and whether it be necessary for Soldiers.	44
CONFERENCE IX.	
I. <i>O</i> f the Earth. II. <i>W</i> hat it is that makes a Man wise.	51
CONFERENCE X.	
I. <i>O</i> f the Motion, or Rest of the Earth. II. <i>O</i> f two Monstrous Brethren, living in the same Body, which are to be seen in this City.	57
CONFERENCE XI.	
I. <i>O</i> f the little Hairy Girl lately seen in this City. II. <i>W</i> hether it is more easie to resist Pleasure then Pain.	64
CONFERENCE XII.	
I. <i>O</i> f three Suns. II. <i>W</i> hether an Affection can be without Interest.	71



---

## The Contents.

---

	Page
CONFERENCE XIII.	
I. <i>Whether Melancholy Persons are the most ingenious or prudent.</i>	
II. <i>Which is most necessary in a State, Reward or Punishment.</i>	
	77
CONFERENCE XIV.	
I. <i>Of the Seat of Folly.</i> II. <i>Whether a Man or Woman be most inclin'd to Love.</i>	
	83
CONFERENCE XV.	
I. <i>How long a Man may continue without eating.</i> II. <i>Of the Echo.</i>	
	89
CONFERENCE XVI.	
I. <i>How Spirits act upon Bodies.</i> II. <i>Whether is more powerful Love or Hatred.</i>	
	95
CONFERENCE XVII.	
I. <i>Of the several fashions of wearing Mourning, and why Black is us'd to that purpose rather than any other colour.</i> II. <i>Why people are pleas'd with Musick.</i>	
	103
CONFERENCE XVIII.	
I. <i>Of the Original of Winds.</i> II. <i>Why none are contented with their Condition.</i>	
	109
CONFERENCE XIX.	
I. <i>Of the Flowing and Ebbing of the Sea.</i> II. <i>Of the Point of Honour.</i>	
	115
CONFERENCE XX.	
I. <i>Of the Original of Fountains.</i> II. <i>Whether there be a commendable Ambition.</i>	
	121
CONFERENCE XXI.	
I. <i>Of Dreams.</i> II. <i>Why Men are rather inclin'd to Vice than Virtue.</i>	
	127
CONFERENCE XXII.	
I. <i>Of Judiciary Astrologie.</i> II. <i>Which is least blameable, Covetousness or Prodigality.</i>	
	133
CONFERENCE XXIII.	
I. <i>Of Physiognomy.</i> II. <i>Of Artificial Memory.</i>	
	139
CONFERENCE XXIV.	
I. <i>Which of the Five Senses is the most noble.</i> II. <i>Of Laughter.</i>	
	144
CONFERENCE XXV.	
I. <i>Of the Diversity of Countenances.</i> II. <i>Whether Man or Woman be the more noble.</i>	
	150

CON-



# The Contents.

	Page
CONFERENCE XXVI.	
I. <i>Whether it be lawful for one to commend himself.</i> II. <i>of Beauty.</i>	157
CONFERENCE XXVII.	
I. <i>Whether the World grows old.</i> II. <i>Of Jealousie.</i>	163
CONFERENCE XXVIII.	
I. <i>What is the greatest Delight of Man.</i> II. <i>Of Cuckoldry.</i>	169
CONFERENCE XXIX.	
I. <i>Whence the saltness of the Sea proceeds.</i> II. <i>Which is the best Food, Flesh or Fish.</i>	174
CONFERENCE XXX.	
I. <i>Of the Terrestrial Paradise.</i> II. <i>Of Embalmings and Mummies.</i>	180
CONFERENCE XXXI.	
I. <i>Whether the Life of Man may be prolong'd by Art.</i> II. <i>Whether 'tis better to be without Passions then to moderate them.</i>	185
CONFERENCE XXXII.	
I. <i>Sympathy and Antipathy.</i> II. <i>Whether Love descending is stronger then ascending.</i>	191
CONFERENCE XXXIII.	
I. <i>Of those that walk in their sleep.</i> II. <i>Which is the most excellent Moral Virtue.</i>	197
CONFERENCE XXXIV.	
I. <i>Of Lycanthropy.</i> II. <i>Of the way to acquire Nobility.</i>	203
CONFERENCE XXXV.	
I. <i>Of feigned Diseases.</i> II. <i>Of regulating the Poor.</i>	209
CONFERENCE XXXVI.	
I. <i>Of the tying of the Point.</i> II. <i>Which is the greatest of all Vices.</i>	214
CONFERENCE XXXVII.	
I. <i>Of the Cabala.</i> II. <i>Whether the Truth ought always to be spoken.</i>	220
CONFERENCE XXXVIII.	
I. <i>Of the Period, called Fits of Fevers.</i> II. <i>Of Friendship.</i>	226
CONFERENCE XXXIX.	
I. <i>Why all men naturally desire knowledge.</i> II. <i>Whether Permutation or Exchange be more commodious then Buying and Selling.</i>	232



---

## The Contents.

---

	Page
CONFERENCE XL.	
I. <i>Of Prognostication or Presaging by certain Animals.</i> II. <i>Why all men love more to command then to obey.</i>	238
CONFERENCE XLI.	
I. <i>Of Comets.</i> II. <i>Whether Pardon be better then Revenge.</i>	244
CONFERENCE XLII.	
I. <i>Of the Diversity of Languages.</i> II. <i>Whether is to be preferr'd, a great stature or a small.</i>	251
CONFERENCE XLIII.	
I. <i>Of the Philosophers stone.</i> II. <i>Of Mont de pieté, or charitable provision for the Poor.</i>	256
CONFERENCE XLIV.	
I. <i>How Minerals grow.</i> II. <i>Whether it be best to know a little of every thing, or one thing exactly.</i>	262
CONFERENCE XLV.	
I. <i>Whether the Heavens be solid or liquid.</i> II. <i>Whether it be harder to get then to preserve.</i>	268
CONFERENCE XLVI.	
I. <i>Of Vacuity.</i> II. <i>Of the Extravagance of Women.</i>	274
CONFERENCE XLVII.	
I. <i>Of the Virtue of Numbers.</i> II. <i>Of the Visible Species.</i>	280
CONFERENCE XLVIII.	
I. <i>Whether every thing that nourishes an Animal ought to have life.</i> II. <i>Of Courage.</i>	286
CONFERENCE XLIX.	
I. <i>Whether there be Specificall remedies to every Disease.</i> II. <i>Whether Tears proceed from Weakness.</i>	292
CONFERENCE L.	
I. <i>Whether Colours are real.</i> II. <i>Whether is better, to speak well, or to write well.</i>	298
CONFERENCE LI.	
I. <i>At what time the year ought to begin.</i> II. <i>Why the Load-stone draws Iron.</i>	309
CONFERENCE LII.	
I. <i>Of a Point.</i> II. <i>Whether other Animals besides Man have the use of Reason.</i>	315
CON-	



# The Contents.

	Page
CONFERENCE LIII.	
I. <i>Whether there be more then five Senses.</i> II. <i>Whether is better, to speak, or to be silent.</i>	319
CONFERENCE LIV.	
I. <i>Of Touch.</i> II. <i>Of Fortune.</i>	325
CONFERENCE LV.	
I. <i>Of the Taste.</i> II. <i>Whether Poetry be useful.</i>	331
CONFERENCE LVI.	
I. <i>Of the Smelling.</i> II. <i>Of Eloquence.</i>	337
CONFERENCE LVII.	
I. <i>Of the Hearing.</i> II. <i>Of Harmony.</i>	343
CONFERENCE LVIII.	
I. <i>Of the Sight.</i> II. <i>Of Painting.</i>	349
CONFERENCE LIX.	
I. <i>Of Light.</i> II. <i>Of Age.</i>	355
CONFERENCE LX.	
I. <i>Of Quintessence.</i> II. <i>Which is the most in esteem, Knowledge or Virtue.</i>	361
CONFERENCE LXI.	
I. <i>Which is hardest to endure, Hunger or Thirst.</i> II. <i>Whether a General of an Army should endanger his person.</i>	367
CONFERENCE LXII.	
I. <i>Of Time.</i> II. <i>Whether 'tis best to overcome by open force, or otherwise.</i>	373
CONFERENCE LXIII.	
I. <i>Of Motion.</i> II. <i>Of Custome.</i>	379
CONFERENCE LXIV.	
I. <i>Of the Imagination.</i> II. <i>Which is most powerful, Hope, or Fear.</i>	384
CONFERENCE LXV.	
I. <i>Of the Intellect.</i> II. <i>Whether the Husband and Wife should be of the same humour.</i>	390
CONFERENCE LXVI.	
I. <i>Of Drunkenness.</i> II. <i>Of Dancing.</i>	396
CONFERENCE LXVII.	
I. <i>Of Death.</i> II. <i>Of the Will.</i>	402



## The Contents.

	Page
CONFERENCE LXVIII.	
I. <i>Of the Magnetical Cure of Diseases.</i> II. <i>Of Anger.</i>	408
CONFERENCE LXIX.	
I. <i>Of Life.</i> II. <i>Of Fasting.</i>	414
CONFERENCE LXX.	
I. <i>Of Climacterical Years.</i> II. <i>Of Shame.</i>	419
CONFERENCE LXXI.	
I. <i>Why motion produces heat.</i> II. <i>Of Chastity.</i>	425
CONFERENCE LXXII.	
I. <i>Of Thunder.</i> II. <i>Which of all the Arts is the most necessary.</i>	431
CONFERENCE LXXIII.	
I. <i>Of the Earth-quake.</i> II. <i>Of Envy.</i>	437
CONFERENCE LXXIV.	
I. <i>Whence comes trembling in men.</i> II. <i>Of Navigation and Longitudes.</i>	441
CONFERENCE LXXV.	
I. <i>Of the Leprosie, why it is not so common in this Age as formerly.</i> II. <i>Of the ways to render a place populous.</i>	447
CONFERENCE LXXVI.	
I. <i>Of Madness.</i> II. <i>Of Community of Goods.</i>	452
CONFERENCE LXXVII.	
I. <i>Of Sorcerers.</i> II. <i>Of Erotick, or Amorous Madness.</i>	457
CONFERENCE LXXVIII.	
I. <i>Why the Sensitive Appetite rules over Reason.</i> II. <i>Whether Speech be natural, and peculiar to Man.</i>	461
CONFERENCE LXXIX.	
I. <i>What the Soul is.</i> II. <i>Of the apparition of Spirits.</i>	466
CONFERENCE LXXX.	
I. <i>Of the Epilepsie or Falling-sickness.</i> II. <i>Whether there be any Art of Divination.</i>	471
CONFERENCE LXXXI.	
I. <i>Of Chiromancy.</i> II. <i>Which is the noblest part of the Body.</i>	475
CON-	



---

## The Contents.

---

Page

### CONFERENCE LXXXII.

- I. Which is most powerful, Art or Nature. II. Whether Wine is most to be temper'd in Winter, or in Summer. 480

### CONFERENCE LXXXIII.

- I. Of Baths. II. Whether the Wife hath more love for her Husband, or the Husband for his Wife. 485

### CONFERENCE LXXXIV.

- I. Of Respiration. II. Whether there be any certainty in humane Sciences. 489

### CONFERENCE LXXXV.

- I. Whether the manners of the Soul follow the temperament of the Body. II. Of Sights or Shews. 495

### CONFERENCE LXXXVI.

- I. Of the Dog-days. II. Of the Mechanicks. 500

### CONFERENCE LXXXVII.

- I. Whether the Souls Immortality is demonstrable by Natural Reasons. II. Whether Travel be necessary to an Ingenuous Man. 505

### CONFERENCE LXXXVIII.

- I. Which is the best sect of Philosophers. II. Whence comes the diversity of proper Names. 512

### CONFERENCE LXXXIX.

- I. Of Genii. II. Whether the Suicide of the Pagans be justifiable. 517

### CONFERENCE XC.

- I. Of Hunting. II. Which is to be preferr'd, the weeping of Heraclitus, or the laughing of Democritus. 522

### CONFERENCE XCI.

- I. Whether heat or cold be more tolerable. II. Who are most happy in this World, Wise Men or Fools. 527

### CONFERENCE XCII.

- I. Which is most healthful, moisture or dryness. II. Which is to be preferr'd, the Contemplative Life or the Active. 531

### CONFERENCE XCIII.

- I. Of the spots in the Moon and the Sun. II. Whether 'tis best to use severity or gentleness towards our dependents. 536

CON-



# The Contents.

CONFERENCE XCIV.  
I. Of the Eclipses of the Sun and Moon. II. Whether all Sciences may be profitably reduc'd to one. 544

CONFERENCE XCV.  
I. Of the diversity of Wits. II. Of New-years Gifts. 548

CONFERENCE XCVI.  
I. Of Place. II. Of Hieroglyphicks. 554

CONFERENCE XCVII.  
I. Of Weights, and the causes of Gravity. II. Of Coat-Armour. 559

CONFERENCE XCVIII.  
I. Of the causes of Contagion. II. Of the ways of occult Writing. 566

CONFERENCE XCIX.  
I. Of Ignis fatui. II. Of Eunuchs. 571

CONFERENCE C.  
I. Of the Green-sickness. II. Of Hermaphrodites. 575

THE



---

# THE First Conference.

---

## I. Of Method. II. Of Entity.

**E**very one being seated in the great Hall of the Bureau, Report was made, That the Resolve of the last Conference was, to Print the Matters which should be propos'd henceforward, and the Disquisitions upon them which deserv'd it; As also that for the bringing in of all the most excellent Subjects that are found in the Sciences, and for the doing it orderly, the Method requisite to be observ'd therein should this day be taken into consideration: The practice of which Method was likewise thought fit to be begun upon the most Universal Subject, which is, *Entity*. Wherefore every one was intreated to set cheerfully about opening the way in this so pleasant and profitable an Enterprize.

The first Speaker defin'd Method [The succinct order of things which are to be handled in Arts and Sciences] and said that it is of two sorts; One, of *Composition*, which proceedeth from the Parts to the Whole, and is observ'd in *Speculative* Disciplines; The other, of *Resolution*, which descendeth from the whole to the parts, and hath place in *Practical* disciplines. He said also, that hereunto might be added the Method of *Definition*, which is a way of defining a thing first, and then explicating the parts of its definition: but it participateth of both the former.

The second said, That besides those two general Methods, there is a *particular* one, which is observ'd when some particular Subject is handled; according to which it behoveth to begin with the Name (or Word;) Distinguish the same by its divers acceptations; then give the Definition, assign its Principles and Causes, deduce its Proprieties, and end with its Species or Parts.

After this some dilated upon the Method of *Cabalists*, which they begin with the *Archetypal World*, or *Divine Idea*; thence descend to the *World Intellectual*, or *Intelligences*; and lastly, to the *Elementary*, which is, *Physicks*, or Natural Philosophy.

That of *Raymond Lullie* follow'd next. And here the Difference of humane judgements came to be wonder'd at. Most other Nations could never fancy this Art which he calls *Great and Wonderful*, and yet the Spaniards profess it publickly at *Majorca*, in a manner ingrossing it from all other places. He maketh the same to consist in thirteen *Parts*. The first of which he calleth



the Alphabet, from B to K; to each of whose Letters he assigneth, 1. a *Transcendent* after his mode, 2. a *Comparison*, 3. a *Question*, 4. a *Substance*, 5. a *Virtue*, and 6. a *Vice*; as to B 1. Goodness, 2. Difference, 3. Whether a thing is? 4. Deity, 5. Justice, 6. Covetousness. To C, 1. Greatness, 2. Agreement, 3. What it is, 4. Angel, 5. Prudence, 6. Gluttony, and so of the rest. The Second Part contains 4. *Figures*; The Third *Definitions*. Then follow *Rules*, *Tables*, containing the several combinations of Letters: The *Evacuation*, *Multiplication*, and *mixture of Figures*; The 9. *Subjects*; The *Application*; The *Questions*; The *customs and manner of teaching*; which I should deduce more largely unto you, but that they require at least a whole Conference. In brief, such it is, that he promiseth his disciples that they shall be thereby enabled to answer *ex tempore* (yet pertinently) to all questions propounded unto them.

The fifth said, That there was no need of recurring to other means then those of the Ordinary Philosophy, which maketh *two sorts of Order*, namely, one of *Invention*, and another of *Disposition* or *Doctrine*, which latter is the same thing with the Method above defined. And as for the Order of Invention, it is observed when some Science is invented, in which we proceed from Singulars to Universals: As, after many experiences that the Earth interpos'd between the Sun and the Moon caus'd a Lunar Eclipse, this *Universal Conclusion* hath been framed, That every Lunar Eclipse is made by the interposition of the Earth between the Sun and the Moon.

An other alledg'd that Method might well be call'd a *Fourth Operation* of the Mind. For, the First is the *bare knowledge* of things, without affirmation or negation; The Second is a *Connexion* of those naked Notices with *Affirmation* or *Negation*. The Third is a *right disposing* of those *Propositions* and their *Consequence*; which if it be necessary, it is call'd *Demonstration*. And the Fourth is the *Series* of those *Demonstrations*, in such manner that those on which others depend are the first: as it is seen in the Elements of *Euclide*.

Also the Lord *Montagne's* Method was alledg'd, who learnt the *Latine* Tongue from the Cradle, no person speaking to him but in that Tongue. So was the *Cyropædia* of *Xenophon*, where the Lessons are the Practice of Political and Military Vertues, which serve more to form the Judgement of Children then the Memory.

## II. Of Entity.

The First Hour being spent in these Remarks, the Second was imploy'd in discoursing concerning Entity, which was explicated by this Series, so much the more agreeably to the Company, for that they observ'd such a Contrivance of it that the end of the preceding Period is the beginning of the ensuing.

All Power requires to be reduc'd into Act;  
Act is a Perfection;

Perfection



Perfection is the accomplishment of that which is wanting ;  
 There is wanting to Man Felicity ;  
 Felicity is, to be united to his Principle ;  
 He is united to his Principle when he is made like unto it ;  
 He is made like unto it by Science ;  
 Science is acquir'd by Demonstration ;  
 Demonstration is the knowledge of a thing by its cause ;  
 To know a cause, it is requisite to seek it.  
 It is sought when we admire it.

We admire that of which we are ignorant.

We are ignorant because of difficulty.

Difficulty, among other causes, ariseth from Disproportion.

Disproportion procedeth from hence, that our Mind is one and finite, and the things which it ought to know are various, yea infinite. Wherefore it ought to reduce all things to one general, which is *Entity*, called by the Latines *Ens* ; Which being known and subdivided imparteth to us the distinct knowledge of all things which depend thereon.

The second added, That *Entity* is *that which is*. For the knowing of it, 'tis requisite to consider its Principles, its Proprieties, and its Species. *Principles* are of two sorts, viz. Either of *Cognition*, or of the *Thing*. A Principle of Cognition is, That which causeth us to know a thing ; As, *That the Whole is greater than it's Part*. The Principle of a thing is that which constitutes it ; as the Rational Soul, and the Humane Body, are the Principles of Man. The Principle of the Cognition of Entity (which is the sole Principle in Metaphysicks) is this ; *It is impossible for one and the same thing to be and not to be at the same time*. The Principles of the Thing are *Essence* and *Existence*. Essence is that which causeth a Thing to be *that which it is* ; As, Reasonable, Animal, (or Living-creature) is the Essence of Man, because it causeth a Man to be a Man. Existence effecteth that a Thing exists forth of its causes.

The Proprieties of Entity are Three ; *One*, *True*, and *Good*. *One*, that which is not divided in it self, but is different from every Thing else. *True*, is that which falleth under knowledge. *Good*, that which is convenient or futable to each thing.

Entity is divided into Real and Imaginary.

Real Entity is either *actually*, or *in power*.

Actual Entity is either Incrated or Created.

Created Entity is either Substance or Accident.

Substance is that which subsisteth by it self.

Accident that which cannot be naturally, but in another.

Substance is either *Incomplete*, which is but a *part* ; or, *Complete*, which is a *Whole*.

The Incomplete are the Matter and the Form ; The Complete, that which is compounded thereof.

As the deduction of each of the above-mention'd points was



going to be made, it was Remonstrated, That these Matters being not easie to be apprehended, nor otherwise express'd then in Scholastick termes, (which we would avoid) it seem'd meet to pass to things more pleasant, running over the rest as lightly as possible; And yet to pursue both the Methods above mention'd. The Company therefore concluded to treat *Of Principles*, and *Of the End of all things, in general*, at the next Conference.

At the hour of Inventions one presented himself and made this overture. I offer to cause any one whatsoever, Man or Woman, of competent age, to comprehend in eight hours, (*viz.* one hour a day, for avoiding the tiring of the Mind) a perfect Logick, wherein shall be contained all the Precepts of well *Defining*, *Dividing*, and *Arguing*; All the kinds of *Arguments*, and the *places* from whence they are drawn; Namely, the Definitions and Divisions of the *Universals*, of the *Causes*, of the *Opposites*, of the *Whole*, &c. Their *Axiomes*, and the limitations of the same, with an Abridgement of *Categories*. I offer likewise to teach perfectly *the Sphere*, and all the Principles of *Geophraphy*, in two hours; so that afterwards the person shall be able to make use of Maps and Books for knowing the *Circles*, *Zones*, and *Climates*; besides the *Parallels* and *Meridians* for finding the degrees of *Longitude* and *Latitude*, and other things pertaining to Geography. I will also teach Moral Philosophy in twelve hours; Metaphysicks in ten; but for Natural Philosophy, I ask four times as much time.

Another said, That to let pass these Undertakings (which he judg'd very daring) there is a great difference between *Wisdom* and *Knowledge*; *Memory* principally contributing to the Latter, as *Judgement* to the Former. That he propos'd a Method to instruct a Child in Wisdom, the Guide and Sterne of Humane Actions.

That all things in the World are either *Necessary* or *Contingent*: The former are immutable, the Rules concerning them few, the seeds of them within our breasts, consequently soon learnt and easie to retain: Provided the unconstant and irregular multitude of contingent things come not to interrupt the Production and Growth thereof; As it happens by the thornes of Sciences which *Solomon*, for this reason, saith were invented to serve for a vain Labour to Men. Sciences, in which there is alwayes room for disputing; because if you except their Principles which they borrow from that Wisdom, all the rest in them is but *probable* and *problematical*. I conceive therefore that the true Method of Instructing a Child is to begin by informing his Judgement with the Rules of things Necessary. For which purpose, he must be taken void of all bad impressions; between six and seven years is a fit Age. In the smooth Table of this Mind is to be written, in good order, the service of God and the King, Honour, Justice, Temperance, and the other Virtues. When this Mind hath been educated in the Maximes appertaining to each of those Heads; As, *That nothing is hidden from God*; *That 'tis better to*  
dye



dye then to revolt from the service of the King; That after Honour there is no more loss; It will be requisite to draw for him out of History Examples of such as have been rewarded for performing the same, and punish'd for failing therein. In the mean time, care must be taken that no evil or dishonest thing be spoken or done before him; if it happen otherwise, chastisement and blame ought to follow the Offenders. This being done, then onely when the precepts which were necessary to his education shall have taken such deep root in his Mind as not to be stifled by the multitude of others; My Method proceeds to furnish him with those of the Liberal Sciences. But with this order again, that (for the same reason) the Rules be not confounded to him with Exceptions; but that these latter be then onely taught him after he ha's well comprehended the former.

For conclusion, there was an overture of a Way to teach by *Playing*, from the A B C to the sublimest Sciences. The Proposers reason was, that the best Method of Sciences is that which takes away Difficulties, the principal of which is, The tediousness of Study. That there is nothing less tedious then Play, for the sake of which both great and small oftentimes lose their rest and food. That 'twas the intention of the first Authors, that Children should learn as it were playing, instead of the great rigors which cause them to study against their inclination, with the loss of time, and other inconveniences observ'd therein. That hence the Place of Learning retains still in Latine the name of the *Play of Letters*, and the Regents Masters of the Play. Then he desired of the Company of Commissioners to receive their Judgement upon the Book which he had made upon this Subject; and the same was deliver'd into their hands for them to make their report thereof, that day seven night. After which all were desired that they would please to report there at the following Conferences the Inventions which they conceiv'd likely to profit the publick; with assurance that the honour and benefit thereof should be secur'd to themselves: and so the Company was dismiss'd.

*Ludus Literarius.  
Ludi-Magistri.*

## CONFERENCE II.

### I. Of Principles. II. Of the End of all Things.

THESE five several acceptions of *Principle* were first considered.

I. As it is taken for a Cause, especially the Efficient, even that of all Things, and which hath no Beginning, namely, God; who also being the End of all, is upon that account called *Alpha* and *Omega*.

II. For the beginning of *quantity*; as a point is the beginning of a Line.

III. For

I.  
Of Principles



III. For the beginning of some Action ; as the first step is the beginning of the race.

IV. For that which is not made of it self, nor any other ; but of which all things are made.

V. For that of which a thing is made, is compos'd, and is known. Which definition comprehendeth the Principles of Generation, Composition, and Cognition. For according to the Order of Nature a thing is made before it *is*, and it *is* before it is known.

The Second said, That the Principles of *Entity* and *Cognition* are the same. For in that they constitute the thing, they are called the Principles of *Entity* ; and inasmuch as Conclusions are drawn from them, they are called Principles of Cognition ; Nevertheless deriving their original the one from the other : As from this Principle of Cognition, *Nothing is made out of nothing*, it is concluded, That then there must be a *First Matter*.

The Third said, That that distinction of the *Three Principles* of *Generation*, viz. *Privation*, *Matter*, and *Form*, (whereof the first and the last are contraries, two onely of *Composition*, viz. the two last) do's not signifie that there are three Principles of the thing which is made ; Seeing that in the *instant* that a thing is made, *to be making* (*feri*) and *to be made* (*factum esse*) are the same. Since then the thing made hath but two Principles, that which is *in making* hath no more : *Privation* being but a Condition requisite to Generation, as the Agent, the End, and some other External Principles are.

The Fourth said, That our Mind alone doth not make distinction between those three Principles, but they differ in reality. Those who say *Privation* is *more* a Principle of Generation then the rest are mistaken, in that they make Generation participate more of Non-entity then of Entity. But it is not, seeing it ariseth out of the former to tend to the latter, being in truth neither the one nor the other. He added, that the Principle of Cognition is either *First*, or *Second*. The *First* proves all, and is prov'd by none ; 'tis the basis of all Sciences, and hath two conditions ; namely, that it can neither be deny'd nor prov'd. As it cannot be deny'd, *That of two Contradictories one is true, and the other false*. Neither can the same be prov'd, because there is nothing beyond it, or more clear and evident. The Second Principles are those of the Sciences, which they prove, as themselves are prov'd by the first Principle. For example, That Principle of Physick, *Contraries are cured by their Contraries*, proves this, *Evacuation cureth the diseases caused by plenitude* ; and it self is proved by that other Principle of Natural Philosophy, to which it is subordinate, that *Action is onely between Contraries* ; which is again prov'd by this, *That Action tendeth to render the Patient like to the Agent*. Which if it be deny'd, 'tis answer'd that if the Agent do not render the Patient like to it self, then this latter would not be altered, and so not be a Patient : Which cannot



cannot be, by the first Principle of Knowledge; *That a thing cannot be, and not be, at the same time.*

The Fifth divided Principles into those of *Logick*, which constitute a Definition, *viz.* The *Genus* and the *Difference*; into those of *Physicks*, which constitute corporeal things, *viz.* *Matter* and *Form*; into those of *Metaphysicks*, which are *Act* and *Power*, *Essence* and *Existence*, and the *Nature* and *Inherence* in all *Accidents*; And lastly, into Principles *Mathematical*, which are a *point* in *contin'd quantities*, and an *Unit* in *Numbers*.

The sixth fram'd this Question, Since every thing that hath a Beginning hath also an End, how is Number, which hath a Unit for its Beginning, Infinite? It was answer'd by another, That that infinity of Number is not in *Act*, as its Beginning is, but onely in *Power*. For when 'tis said, *That there is no Number so great, but may be made greater to infinity*, this ought not to be accounted more strange then that other Proposition, which is also true, *viz.* *That a Quantity which hath a Beginning may be divided without End*; There being no *Body* so small but may be divided again into a less: For that *some thing* cannot be resolv'd into *nothing*, as of *nothing* cannot be made *some thing* naturally.

This matter was ended with another division of Principles into *General* and *Particular*. The *General* (said they) are some times, but indiscreetly, confounded with *Causes* and *Elements*. For every Principle is not a *Cause*, nor every *Cause* an *Element*, nor any *Element* a Principle: Although every *Element* be a *Cause*, and every *Cause* be a Principle, *External* or *Internal*. That every Principle is not a *Cause*, appears by *Privation*, which is a Principle (notwithstanding what hath been otherwise argu'd) by the Maxim above alledg'd; That *Action* is onely between *Contraries*. Principles then must be such. Now the *Matter* is not contrary to the *Form*; Therefore *Privation* must. That every *Cause* is not an *Element*, is clear by the *Final* and the *Efficient*, both of them being extrinsical to the *Thing*; And nevertheless an *Element* is the least part of the *Thing* in which it is in *Act* or in *Power*. It is also manifest that an *Element* is not a Principle, for it is compounded, and corporeal; which a Principle is not. *Particular* Principles are as various as there are several things in the world. So the Principle of *Divinity* is the *Faith*; Of *Physick*, to preserve the *Man* and destroy the *disease*; Of *Law*, that which is according to *Nature*, *Reason*, and *Custom*: The Principle of *Understanding* is *Natural Evidence*; those of *Oeconomy*, lawful acquisition and use of *Goods*; Of *Politicks*, *Policy*, *Prudence* applyed to right *Government*; Of *Prudence*, that which is expedient to do or avoid, The Principles of *Mathematicks* are its *Axiomes*; As if, of two equal things, you take away from one as much as from the other, the remainder shall be equal.

The Principles of *History* are *Experience* and *Humane Faith*: Of other *Arts* and *Disciplines*, their *Rules* and *Precepts*. The Principles



Principles of Man as Man, are the Body and the Soul ; as a mixt Substance, the Four Elements ; as a Natural, the Liver ; as Vital, the Heart ; as an Animal or Sensitive, the Brain ; as Reasonable, the Intellect. The Principles of an Argument are the *Major* and the *Minor*. The End is the Principle of rational Actions ; as the Matter in things Natural, and the Idea in Artificial.

II.  
Of the End  
of all  
Things..

The Second Hour was imploy'd in discourse touching the *End*, concerning which it was said, First, that *End* may be taken as many wayes as *Beginning* ; Improperly, for the corruption of some thing ( therefore, saith *Aristotle*, Death is not an End, but a *terme*) Properly, 'tis the Good whereunto all things tend ; and 'tis either *first* (as, to make a medicine) or *last* (as to cure.) Things which can tend to this End are divided into four Classes. Some are furnish'd with Reason, but not with Sense ; as the Angels or Intelligences : Others have Reason and Sense, as Man : Others have Sense without Reason, as Brutes : Others have neither Sense nor Reason, as all the rest of the Creatures. Onely the two former Agents, namely, Angel and Man, act *formally* for some End ; because they alone have the four conditions requisite for so doing ; viz. 1. Knowledge of the End ; 2. Knowledge of the Means which conduce thereunto ; 3. A Will to attain it ; And 4. Election or Choice of those Means. Others act indeed for it, but *improperly* ; as the Spider and the Swallow, though they frame onely by a natural Instinct, the one its Web, the other its Nest, yet attain their End ; and the Stone is carried by its own weight to its Centre, which is its Good ; but without the above-mention'd conditions.

The Second went about to prove that some of those Animals, which we account void of Reason, Act *formally* for their End. For, said he, not to mention the Elephant, recorded by *Plutarch*, who divided his Oates in his Master's presence, as to shew him that he had but half his allowance usually given him ; or that other who carried his Kettle to the River, and fill'd it with water, to try whether it had not a hole in it ; Nor the Ox, who never went beyond the number of buckets of water which he was wont to draw ; Nor the Fox, which layes his Ear to the Ice to listen whether the water moves still underneath, before he trust himself upon it ; Nor the Hart of *Crete*, which runs to the *Dittany*, and, as they say, with that herb draws the Arrow out of his flesh : Is it not for the good of its young that the Swallow distills into their Eyes the juice of *Celandine*, with which she recovers their sight ? From whence Men have learnt to make use of that herb against the filme of the Eye. Have we not Horses which let themselves blood ? Ha's not the Dog election of all the wayes, whereof he chooses onely that which his Master went, who ( with all the goodly prerogatives that he ascribes to himself above him ) cannot do so much as his Dog ? And though the Example be familiar, do we not see Domestick Animals whom



whom the Apprehension of beating keeps often from doing the mischief to which their natural inclination leads them: Which is, not onely to *know* an End, but amongst many to *choose* the best.

The Third reply'd, That these Examples evidence the dexterity of Man's wit; who knows how to apply them to his own purposes: But, in reality, it belongs not to a Brute, what ever advantage it may get by commerce with Man, to know its End *as an End*: Because the End is that which measures the Means; a Mean (*Medium*) being not the better for that it is greater, but for that it is fitter proportion'd to its End. So when *Hippocrates* cures the Cramp with cold water, the Cure is not less excellent then if he did it with potable Gold. Now this Comparing and Measuring is a work of the Understanding.

The Fourth said, As all other Lights disappear at the Sun's, so all the other Ends must give place to the Last, which is the *Supreme Good*, or, Felicity: Which being either Natural or Supernatural, and this latter inexpressible; It seems that the present Exercise ought to terminate in the former, namely, Natural Felicity. This Beatitude, in what ever thing it is found, (for *Saint Augustine* reckons above eight hundred Opinions about it, and yet more may be added to the number) consists in the most excellent Action of Man, which cannot depend but upon the noblest Faculties, the Understanding and the Will. The *Action* of the former is to *Understand*; That of the Latter is to *Will*. The Felicity then of Man consists in *Understanding* well, and in *Willing* well, or Loving; For the pleasure of Enjoyment is but the relishing of this Felicity, not the Felicity it self, as some have thought, with *Epicurus*, who is to be blam'd onely in this regard: For it is neither true, nor credible, that a Philosopher could so much forget himself as the vulgar imputes to him, to place the Supreme Good in Pleasures, even the foulest and grossest.

The Fifth maintain'd, That it was unprofitable to speak of a Thing which *is* not; Meaning, that pretended worldly Felicity which Men onely fancy; and to that Induction which *Solomon* makes of all the things in which Men seek their contentment in vain, he added Authorities holy and profane; to shew that there is nothing happy on all sides; and that *Solon* had reason to say, That Felicity is not to be found in this Life.

*Nihil est ex  
omni parte  
beatum.*

The Sixth reply'd, That what is said of the Miseries of this corruptible Life, compar'd with the beatitude of the other eternal, ought not to be confounded and taken absolutely. That the contentments of the one cannot be too much vilifi'd, in respect to the ravishments of the other; of which the Pagans themselves had knowledge enough (though under several names) by the sole Light of Nature, to cause them to make the Fiction of the *Elizian Fields*; in comparison of which they held that there was nothing but unpleasantness in this world. But as the barbarousness of some Ages past is not to be compar'd with



the Politeness and Learning of this (and yet there was always some or other amongst them that pass'd for an accomplish'd Man) so because there is a great Felicity in Heaven, it is not to be infer'd that there is none at all upon Earth. Besides, we might (contrary to the receiv'd Maxime) accuse Nature of having made some thing in vain, by Imprinting in Man that desire of becoming happy in this world, if he cannot be so.

The Seventh said, That a Man is not happy by possessing some Excellent Thing, but by the satiating of his desire. And therefore if (which is impossible) a happy Man should desire some greater Good, he were no longer happy. As on the contrary, he who can satisfy himself with the least Good, is nevertheless happy. For 'tis the correspondence or suitability which makes a Good to be esteemed such. A Good may content the Appetite without reflection; but if the conditions of the Enjoyment be reflected upon, it will suffice for the rendering it perfect, that the Imagination exempt it from all imperfection, and attribute all the Prerogatives to it which the Will desires in it; although it deceive it self.

The Eight defined, The *Supreme Good*, (after Aristotle) *The Action of the most perfect Virtue, (which is Wisdom and Prudence) in a perfect Age and a long Life, accompani'd with the Goods of the Body and of Fortune, viz. Health, Beauty, Nobility, Riches, and Godly Children.* Not that the Felicity which is call'd *Formal* consists in these Goods; but they serve for instruments and ornaments unto it, as 'tis hard for a sick Man to become Learned, and for a poor to exercise the Virtues of Liberality and Magnificence.

The Ninth said, That in Morality the General Propositions are easier to be assented to, then the Particular; Yea, that there are many to which all the world assents in general termes; As, *That Virtue ought to be Loved.* For then we willingly embrace it wholly naked. But by reason of the difficulties which accompany it, Opinions become divided. The Prudent, who knows how to moderate his Passions, willeth it; The Incontinent, who pleaseth to let himself be hurried by the torrent, willeth it not; And denying in the retail what he before approv'd in the gross, contradicts himself. Another willeth and willeth it not, because he willeth it too faintly, or doth not sufficiently avoid the occasions which lead to Vice. Thus all the world agrees, That it behoveth to render to every one that which belongs to him; but in the Application, the honest Man doth so, the dishonest doth the contrary. There is not the Man but confesseth, That the End ought to be prefer'd before the Means which conduce to that End; But one takes for an End that which another takes for a Means. The Covetous (and indeed most Men) take Riches for the End, and Virtue for the Means. On the contrary, the Good Man takes Riches for the Means, and Virtue for his End. In my Judgement, the true Felicity of Man in this world comprehendeth the Goods of the Mind, as the End; the Goods of the Body and Fortune onely as the Means.

There



There was none in the Company but seem'd to have a Mind to speak something to this great Question; of which, out of this Conference, even every particular Man daily passeth Judgement without speaking. For he who forgets all things else, for the acquiring of Honour or Riches, or for the taking of his Pleasure, doth he not imply that he maketh the same his Supreme Good? He that entreteth into a Religious Order, doth he not seek the same in Religion? And so of others. But for that the Second Hour was slipt away, the Company proceeded to determine the matter to be treated of at the next Conference; which was, for the First Hour, *Of Causes in General*. And because there is observ'd in some, even the most equitable, an ardour in maintaining their Judgements, though every one was sufficiently warn'd that this place is to have no disputings, and that none is oblig'd to uphold what he hath said with new Reasons, (our sentiments here being all free;) It was propos'd, for the second point, to be particularly inquir'd, *Why every one desires to have his own Judgement follow'd, though he have no interest therein.*

The Hour design'd for Inventions began with the Report made by the Commissioners nominated at the last Conference for examining the Book containing the Method of Teaching the Liberal Disciplines *by Playing*; The Report was, That the Author seem'd very capable of performing it, the Discourse being written in a good stile; That it evidently prov'd that the thing is Practicable; as well in respect of the Method itself, which seemes feasible, as the Masters of the Play, and the Disciplines. But for that he discover'd his meaning onely in the Art of Teaching to read and write, and not in the other Disciplines, they could not give their Judgements upon more then what appear'd to them; and so much they lik'd and approv'd.

Then an Other presented a Latine Poem, Entitl'd, *Fulmen in Aquilam*, containing, in Twelve Books, Twelve Thousand Heroick Verses, in which was compriz'd the Life, Atchievements, and Death of the King of *Sweden*; Having first Remonstrated to the Company that the great reputation of these *Conferences* brought him from his own Country to this City, that he might correct, refine, and polish his work, by the censure of so many great Wits as met there; Conceiving there is no better way to write things for lasting, then to pass them under the Judgements of many. Whereupon Commissioners were assigned to him for that end, into whose hands he deliver'd his Work.

After which, to shew that something has a Beginning, and yet no End; Another offer'd to make appear the Experiment of a *Perpetual Motion*, if the matter could be kept from decaying.

A Third answer'd, That making it of Glas, the matter would be Eternal, Glas being the last Product of Nature; And that thence the Conjecture is probable that the Earth will be vitrifi'd by the last Conflagration, and by that means become diaphanous and resplendent. And thus ended this Conference.



## CONFERENCE III.

I. Of Causes in General. II. Whence it is that every one is zealous for his own Opinion, though it be of no importance to him.

I.  
Of Causes in  
General.

HE who spoke first, said, That the word *Cause* must not be confounded with that of *Reason*; though it seemes so in our manner of Speech; because an *Effect* serves sometime for a Reason to prove its *Cause*. As when I am ask'd the reason by which I know that Fire is *Light*; I Answer, *By its ascending upwards*; which is the *Effect* of Fire, and the proof but not the Cause of its lightness. *Cause* also differs from *Principle*, because every Cause is real, and imparts a being different from its own; which Privation (being a Principle) hath not: And so every Cause is a Principle, but every Principle is not a Cause. Now a Cause is *That which produceth an Effect*. There are *Four*; *Matter*, *Form*, the *Agent*, and its *End*. Which Number is not drawn from any real distinction between them; Seeing many times one and the same Thing is Form, Agent, and End, in several respects. So the Rational Soul is the Form of Man, the Efficient Cause of his Ratiocination, and the next End of the Creation. But it is drawn from the four wayes of *being a Cause*, which are call'd *Causalities*; whereof one *sustineth* the Forms, to wit, the *Matter*, An Other *informeth* that Matter, and is the *Form*; A Third produceth that Form, and uniteth it to the Matter, and is the *Agent, or Efficient Cause*; The Fourth by its goodness exciteth the Agent to act, and is the *Final Cause*.

The Second said, That the Causes are handled diversly, according to the diversity of Sciences. The *Logician* speaks of them so far as he draws from them his *Demonstrations, Definitions*, and *Probable Arguments*: The *Natural Philosopher*, inasmuch as they are the Principles of all kind of *Alterations* hapning in natural bodies: The *Metaphysitian*, as Cause is a Species of *Entity*, which is generally divided into *Cause* and *Effect*: In which consideration Supernatural Things have also some Causes, but not all. Wherefore, in my Judgement, said he, Cause taken in general cannot be divided into the *Four Species* above mention'd; because Spirits have no Material Cause: but it ought to be first divided, in reference to Immaterial things, into Efficient and Final; and into the four abovesaid, in respect of Material. That Efficient Cause is the first principle of *Motion and Rest*, and is of two sorts; viz. *Universal or Equivocal*, and *Particular or Univocal*. The former can produce several effects of different Species, whether it depend not on any other, as God, and is then call'd the *First Cause*; or depend on some other, and is call'd a *Second Cause*; As the Sun, which together with Man generates Man.



Man. The Particular (otherwise, Univocal) Cause is that which produceth *one sort of effect* alone; As Man generateth Man. The *Material* Cause is that *of which something is made*. The *Formal* Cause is that *which causeth the Thing to be that which it is*, whether *Essentially*, as the Soul makes the Man; or *Accidentally*, as a round form makes a Bowle. The *Final* is that *which incites the Agent to act*: as Gain doth the Merchant to Traffick.

The Third said, Matter and Form being *parts* of the *whole* cannot be Causes thereof; because then they would be Causes of themselves; which is absurd. Neither is the End a Cause, but onely the *term* and *rest* of the Cause; Besides, there are some Ends which are impossible to obtain, and are nothing of reality, such as a Cause ought to be; as when *Heliogabalus* propounded to himself to become a Woman, others to fly, to become invincible, and the like absurdities. So that there is but the Efficient *Sole* Cause of all Things, which is the *Internal Idea* in God, which is nothing else but that *Fiat* which created the World. 'Tis that very Cause which produceth all things in all different times and places, and acts upon *Art*, *Nature*, and *Nothing*; whence it is that All Entity, conformable to that Increated Exemplar, beareth those three Characters, *Truth*, *Goodness*, and *Unity*, which all things are bound to represent, under the Penalty of becoming Nothing, out of which they were produced. 'Tis a *Circle* (according to *Trismegist*) whose *Centre* is *every where*, and *Circumference* *no where*; which possibly mov'd *Galen* to term Man the Centre of Mixt Bodies; and all Antiquity, a *Little World*; and made Saint *Thomas* say, that *Man hath been united hypostatically to God the Son, who is the Idea of the Father, for the rejoyning of all the productions of the world to their first Principle*. Here he fell into Divinity, but he was admonish'd to observe the Rules appointed by this *Assembly*, to keep as far off as possible from such Matters; and so he ended, when he had mention'd the order that is observ'd in the actions of that Idea, (which said he) acteth first upon the *Intelligences* as nearest approaching to its pure Nature; they upon the *Heavens*, these upon the *Elements*, and these upon mixt bodies.

The Fourth added, That that *Idea* is a Cause not onely in Natural Things, but also in Artificial. As in the building of a House, the Idea which the Architect hath in his Mind excited his Will, and this commands the Motive-faculty of the Members, or those of his Laborours, to dispose the Stones, Timber, and Morter; which entring into the Composition of the Building, cannot (for the Reason above-mention'd) be Causes of it, as neither can the *proportion and form*.

An Other said, That if the *Idea* be a Cause, (which cannot be but in Artificial Things) it must be the *Formal*, and not the *Efficient*; since it is nothing else but an *Original*, in imitation of which the Artificer labours; and since the work derives its form from that Idea which is the *Copy*.

It



It was added by a Sixth, That the *Idea* is no Cause, but the true Essence of Things, and the first objective Verity which precedes all Knowledge Humane, but not Divine; and is onely hereby distinct from *Nothing*, in that it is known by God: which suteth not with *Nothing*, from which any thing cannot be distinguish'd; but it must be, if not *in Act*, at least *in Power*.

The Seventh, amplifying touching *Ideas*, said, That upon the Knowledge of them depend all Sciences and Arts, but especially all what Men call *Inventions*, which are nothing less then such; because 'tis no more possible to invent some thing new, then to create some substance, and make some thing of nothing. But as all things are made by *Transmutation*, so no *Novelty* is produc'd by *Imitation*, either of things which are really existent, or which our Mind frames and connects; as of a Mountain and Gold, it makes a Golden Mountain. Thus the four most Excellent Inventions of the Modern Ages; The *Compass*, the *Gun*, *Printing*, and *Perspective-glasses*; the two former were deriv'd from Experiments of the Load-stone, from the effect of shooting Trunks and Fire. As for Printing, what is the Matrice, wherein the Founders cast their Characters, or those Characters compos'd in a flat Form, as also Copper-cuts, but a perfect Exemplar and Idea, which is communicated fully to all its individuals? And Perspective-glasses are nothing but ordinary ones multiply'd.

Another said, That Causes cannot be known at all; whence it comes to pass that we have no certain Knowledge; Now to know, is to know a thing by its Causes. For the *Universal Efficient Cause* is above us, and surpasleth the capacity of our Understanding; and hence all the other inferiour and subordinate ones are unknown, because their Cause is not known. The *Final* is not in our power, and being not so cannot be known, because knowing presupposeth being. *Formes* and *Specificall Differences* are hidden to us. The *Matter* is so unknown, and so little a thing, that even *Aristotle* could not define it, saving by what it is not, or by Analogy and Proportion to other things; But since Proportion cannot be but between two things equally known, and the *First Matter* being not so, (so much as the Wax, to which, for Example, it is compar'd) our Mind cannot comprehend that Analogy.

The Ninth said, That the *Elements* (which he held to be the *First Matter*) are ingenerable and incorruptible; *Mixt Bodies* being nothing else but those *Elements* united in sundry fashions. That this *Harmonical Union* and Symmetry is the form of Mixts, which is nothing but a certain *Mode* or *Fashion* of Being: Whence in all kind of *Generation*, there being no *Substantial Mutation*, but onely a *Conjunction* and *Separation* of the *Elements*, there is no other Cause but their *Matter*. Which is thus prov'd to be the *First*; because if there be a second granted, then as *Brass*, being the *Matter* of a Statue, that *Brass* must have another Matter,



Matter, and this is a Third, and so to Infinity; unless one *First* be acknowledg'd.

The Tenth said, That if a Material Cause be admitted, the Three other must be admitted also. For Matter naturally desiring Formes, it is alter'd from one into another, and that Alteration cannot arise from it self: For Nothing is altered by it self but by an other. It comes then from some Agent which moves that Matter, and which is the Efficient Cause; which cannot do any thing in vain, but for some *End*, and this is the Final Cause. This End is in Natural Things the same with the Form, and differs not from it but according to our manner of Understanding. For the End of Generation is the Form of the Thing generated; and that very Form is the End of Generation. Wherefore, admitting the Matter, the other Three cannot be excluded.

Here they pass'd to the Second Point design'd for this Conference, upon which many Opinions of divers Authors were alledged; Some attributing the Zeal for our own Judgements to the Antipathy which is found in contrary Humours, caus'd by the diversity of Temper, and these by the opposition of the Heavenly Bodies: Especially when *Saturn*, that obstinate and melancholly Planet is predominant there. Others refer'd it to Ambition, following the conceit of those who think there is a Heap of Honour in the world, to which every one hath his right, and of which there is less left to others when some are suffer'd to take a great deal. One ascrib'd it to the subtilty of the Mind, which seeks to sport it self in new conceits, and having produc'd them will not seem to want means to defend them. And he observ'd that this *Cantharides* of Opinastry adheres usually to the goodliest flowers; there being otherwise nothing more necessary to the evidencing of Truth then contest in which we propose to our selves to find it.

After this, One explicated that which gave occasion to the Question, in this manner. Men desire nothing but *Good*, distinguish'd into *Honour*, *Profit*, and *Pleasure*. None of which Three are gotten by obstinacy in an erroneous conceit, especially when it is known for such; But, on the contrary, there is shame in it; one loseth his credit by it many times, but alwayes the time, and renders himself unacceptable to the hearers, as 'tis seen in Scholastick Disputes. Whence it comes to pass that a Scholar brought up in these wranglings never begins to be esteem'd in company till he has laid aside that ill quality of *Never-yielding*. Whereas, on the contrary, the more Ingenuous decline those Asperities by words of yeldance even in things wherein they have apparently most of Reason on their side. And when they are mistaken, as a metled Horse rather rids himself out of the Plough then staves there; So 'tis proper to a strong Mind to betake to a better Sentiment then its own, without sticking at the fear which the weaker are possess'd with, lest they should be

II.  
Whence it is  
that we are  
zealous for  
our own  
Opinions.

blam'd



blam'd for having been subject to err either *in fact* or *in right*: Remembring that 'tis incident to Humanity to err, but Diabolical to persevere in a fault. *Hippocrates* hath freely told his own. *St. Augustin* hath made a Book purposely of his *Retractions*, and after him *Cardan*, and many other great personages. Every one knows this, every one commends it rather than *Opiniastry*; but when it comes to the effect, very few people practise it. Which might be excus'd by the strong Passion for particular interests, if Men gave their Opinions in a Matter which concern'd their or their Friend's Estate, &c. But I account it strange in a Question which imports no benefit at all to any person, as in that about the Idea's which we were newly speaking of.

The next found some scruple in the Thesis: for that it seem'd impossible to him for a Man not be concern'd for his *Good*; Now his *Good* is that his judgement be alwayes esteemed. Nor matters it that he may be mistaken in his conceit of that Good; for it sufficeth that he judge it such: Objects of the Will being to the Understanding, as Colours are to Light; this doth not give them their Essence of Colour, but they hold that from their own Principle; but it imparts the being visible, or visibility, to them: So the Understanding gives not to the Objects of the Will that futableness wherein the Nature of Good consists, they have that from their own stock and Nature; but it gives them Amability or Appetibility, or, to speak better, the being amiable or desirable. For knowing such convenience or futableness, it judgeth the futable thing amiable; So that as soon as 'tis judg'd such, 'tis desired as a Good. Now Man judging it a Good to have his Opinion follow'd, willeth it as such; and as a thing wherein he hath the highest interest. For Man, as Man, hath no Good more Eminent then to Know, Judge, and give his Sentence of Things; 'tis his utmost Natural End. Moreover, Truth which is the Result of that Good, is defin'd a Measure, Adequateness, and Correspondence of our Understanding and the Thing known, attributing to it nothing Extrinsecal, and abstracting from it nothing that is its own. Now a Man that hath judg'd and given his advice, at least according to his Apprehension, seeing that advice rejected, falls into a double interest; One arising from the charitable inclination which he hath for the good of him that consults him, whom he seeth likely to miscarry by not following his advice; The other being his own proper interest, for that the sleighting his advice is a tacite accusing him of failing in a Thing Essential to his End, and calling him a Monster, or *Fault of Nature*. For as a Monster is call'd a Fault of Nature, because the Agents producing it have slipt and gone awry out of the way which she had prescrib'd and scored out to them: So Man not judging as he ought, deviates out of the way which leadeth to his End. This is it which makes him so sensible of the sleighting of his advice, which sleighting seems to conclude that he hath ill judg'd, and is a Lyar in his Knowledge.



ledge. And hence it is said that our French cannot endure a Lye, by which a Man is imply'd to have no Understanding nor ability to judge; seeing a Lye is opposite to that Truth which I spoke of. For the same Reason a Man is offended with being called Fool, that is, stupid and unable to judge; in Revenge of which Injury, and to render the like, he often gives a *Cuff*, which stricketh upon the Seat of Wisdom, the Face; for according to *Solomon*, the Wisdom of a Man shineth in his Countenance: Therefore our Lord saith in the Gospel, that he who calleth his Brother Fool is liable to Hell, for that he impeacheth the goodly lustre of Gods Image, which consisteth in Judgement and Knowledge; which he who calleth Fool, obscureth and bringeth in doubt.

The Third said, That the Reason why we are so zealous for our Opinions, is, For that we love all that proceedeth from our selves, and particularly our Children, in whom we see portray'd somewhat of our own Images; So our Opinions and Conceptions being the fruits of our Mind, we love them with Passion. Whence also Men are more lovers of the wealth which they have acquir'd themselves; then of that which they inherit. But the Reason why we are so zealous of our opinions, though we know they are false, is, That the more false Things are, the more they are their own. For a true Opinion is ours indeed, but *not altogether*, for it is also *in the Thing*; Whereas that which is false is onely ours, since it hath no foundation in the Thing, but meerly in our Mind which imagines it *to be*, though it *be not*. Whence it is that there is no Religion nor Heresie so false, but have had their Authors and followers. Yea, 'tis chiefly in this kind of Judgement that we will not be controll'd; But Authorities, Reasons, Experiences, and also punishments being ineffectual, cause it to be conjectur'd that there is something more then *Humane* therein. For our Mind, which of it self is pleas'd with sublime Things, such as they are which concern Religion, is the more zealous of them the more false they are, as being altogether our own.

The following Speakers refer'd the Cause to the *difficulty* of defacing that which is engraven in our Understanding; To our being grounded in *Different Principles*, to the *habit* which some have of contradicting all proposals of others; like the Woman of whom *Poggio* the Florentine speaks, who being drowned, her Husband went to seek her up the stream, because she fell into the River far below; and to those who advertis'd him to seek her downwards, he answer'd; That they did not know his wifes Humour: For since others floated down according to the current of the River, she would infallibly ascend against the stream of the water.

The Third Hour was spent in the Report of the Poem deliver'd to be examin'd in the preceeding Conference; the Author of which was the more commended for so great a Performance,



in that there hath not appeared in our Age so long-winded a Poem: Whereof the fault was attributed to the niceness of the Witts of these Times, impatient of long reading, and the too exact manner of writing wholly turn'd into points, the continuation of which is next to impossible.

Amongst other Inventions, was offer'd that of an Instrument which so magnifieth a species, that a Flea appears in it of the bigness and form of a Rat, and the little wormes which are found in all kinds of good Vinegar, of the bigness of Eeles.

For that One had spoken otherwise of the *First Matter* then they do in the Schools, and there had not been sufficient Information of the Proposal made in the last Conference touching a Perpetual Motion, they were appointed for the Subjects of the next.

## CONFERENCE IV.

### I. Of the First Matter. II. Of Perpetual Motion.

I.  
Of the First  
Matter.

THE Entrance into the former of these Subjects was made in this manner. We should be too sensual Philosophers, if we believ'd nothing but what we see; though also we see the First Matter; but 'tis as the Ancients said *Proteus* was seen, namely, in so many formes that there was not one of them his own, and yet he was never destitute. So I see the *First Matter* under the form of a Man, a Horse, a Tree, a stone, and yet the stone, Tree, Horse, Man, are not the Form of that First Matter, for it hath none: Otherwise, if I conceive it cloth'd with one single Form, 'tis then call'd *Second Matter*. Nevertheless they differ not really one from the other; no more then a Man naked, and afterwards clothed. The *First* is the common Subject of *Substantial Formes*, and remaineth both before and after Corruption.

The Second said, That as God is Incomprehensible, by reason of his exceeding Grandeur; so is this *First Matter*, by reason of its baseness and lowness; which makes it of all Things of the world neere to *Nothing*, conceivable by its obscurity alone, as the night which we begin to see when we no longer see any thing else. Whence it followes that we cannot say *what it is*, but onely *what it is not*.

The Third said, That as *Inachus*, Father of *Io*, seeking his Daughter, found her Name written every where: For being turn'd into a Heifer, whose Foot is cloven, with the Pastern she grav'd an O, and with the cleft an I, and so form'd *Io*. Nevertheless her Father knew her not; for she was under a form which cover'd and hid the shapes and lines of her visage: Just so is the *First Matter* found written every where. For of it (better then of *Jupiter*) we may say that it is whatsoever thou seest, and

Jupiter est  
quodcunque  
vides, quod-  
cunque mo-  
vetur, Lucan.



and whatsoever is mov'd is Matter: But being cover'd with a form, and involv'd with the attires that follow it, it cannot be seen in the pure and naked Nature of First Matter. And just as in a loaf of Bread, the Leven which fermented it is there, though kneaded and temper'd in the mass of Meal, in which it seemeth lost: For being dissolv'd it turnes to it self, and into its own Nature, the whole Mass wherein it is incorporated: And as in Cheese, the Rennet (though dissolv'd and mixt in the Milk) ceases not to be there; yea, draws to its Nature the substance into which it was liquifi'd: So the First Matter, though it seem to have lost its *being* by entring into the *Compound*, retains the same notwithstanding, and also draws all to it self, rendring material what ever it is joyn'd to. And although it be not visible or perceptible when 'tis alone, yet it is *real* in the Compound, in which it puts off the Name of *First*, and takes that of *Second*. We prove this *First Matter* from the Necessity of a *Common Subject* in all Mutations, out of which the Agents, which destroy the formes opposite to their own, may draw forth those which they will produce; which is the *term* of their Action: Otherwise Things must become nothing, to pass from one *being* to another; which would presuppose Creation, and destroy those Two Maximes, *That a Thing cannot be reduc'd into Nothing*; and *Of Nothing is not made something*. It is defin'd *An Imperfect and Incomplete Substance, the First Subject of Natural Things*, which are compos'd of it as an Internal and Essential part, not by accident. Its quality is to be a *pure Passive Power*, which is nothing distinct from it self, but is taken for a Thing begun and not perfected; yet design'd to be finished by the Supervening of the Form, and the interposing of Agents, who by their activities drawing the Form out of the bosome of it, perfect and accomplish it. It serves for two purposes: First, To give *durance* and *Consistence* to all Things, which last so much the longer as their Matter is less compounded; That is to say, less alienated from its naked and pure Nature of *First Matter*: As it appears in the Heavens and the Elements, which I conceive are not changed one into another. In the Second place it serves Agents for to act, and Patients to resist. Whence it comes to pass, that the more compact and close their Matter is, the more powerfully they resist: As appears in a *hot Iron* which *burnes* more then common flame; in *Water* which *moistens* more then aire, though it be less *humid*; and in *Steel*, which resists more then Lead.

The Fourth said, That to know what this *First Matter* is, it behoveth to proceed thereunto by the way of the *Senses*, and then examine whether *Reason* can correct what they have dictated to us. Now our Senses tell us that most part of mixt Bodies are resolved into *Salt, Sulphur, and Mercury*; And the Chymists affirm, that these Three Bodies cannot be reduced into any other *Matter* by any Artifice. But *Reason* correcting *sense* teacheth us, that though these Three Bodies are Chymical *Sensible*



Principles, yet they are not *First Principles*, nor the *true First Matter*; for that all Bodies are *not* made of *them* (as 'tis seen in the Cœlestial) and they may yet be reduc'd into another Matter, *viz.* into the Elements. For in Sulphur there is *Fire*, seeing it is inflammable; And it hath also some Aqueous or Terrestrial Substance which makes visible that *Fire*. Likewise there is *Fire* in Salt, seeing it is tart and biting, and according to the Chymists, the subject of natural heat: There is *Water* too, for it melteth, and it extinguisheth *Fire*: There is also *Earth* in it, for it is dry, fixt, compact, and weighty. Wherefore Reason leading us as far as the Elements, it remaineth to consider whether we must stop there, or go yet further, to find out a Matter into which these are reduc'd. But not finding any, I conceive they must be the *First Matter*.

The Fifth reply'd, That the Elements being *complete* Substances, and consequently *compounded* of *Matter* and *Form*, we must not stop there, but go further in search of that first and ultimate subject of all Natural Mutations; it being inconsistent, that a Compound of Matter and Form should be but *one* of those Two.

The sixth held, That *Water* is the *First Matter*, if not the Elementary, at least the Æthereal Water, which was for that purpose created first: The Holy Scripture witnessing, that *In the beginning God created the Heaven and the Earth*: Where the *Hebrew* word that is render'd Heaven signifie *The Waters*; and 'tis added *That the Spirit of God moved upon the Waters*. Moreover, our Life consisteth solely in *Humidity*; which failing, Death ensueth.

The Seventh said, That the *First Matter* being a Thing most imperfect, and least active, such as the Earth is too, she ought rather to bear that Name than any of the Elements. To shew further that the Elements are the *First Matter*, it was alledg'd that they are not transmuted one into another, but are ingenerable and incorruptible; that consequently in every kind of Generation or Corruption there is not made any *Substantial* Mutation, but only an *Union* or *Separation* of the Elements; And therefore it is not needful to recur to another *First Matter* that may be *Permanent* under all Mutations, since *Entities are not to be multiply'd without necessity*. For as to the former, They are not transmuted one into another, because, before the Transmutation, or Substantial Generation of a Thing, *Alteration* is requisite, that is, the Introduction of *Quality* and *Dispositions* suitable to the Form which is to be produc'd. For Example, before *Fire* be turn'd into *Water*, *Air*, or *Earth*, it must first receive *Cold*, *Moisture*, and *Gravity*, which are the *Qualities* suitable to those *Formes* which it is to receive; but this is impossible: For *Fire*, while it is *Fire*, cannot be *Cold*, *Moist*, and *Heavy*. As for the Second, *viz.* That the Elements are ingenerable and incorruptible, he shew'd it by this other Example. From *Wood* that burnes proceed the Four Elements,



Elements, or Four different Natures correspondent to them, *viz.* Flame, Smoke, Liquor, and Ashes, but they were in it before; because they could not be produc'd out of *Nothing*; And in the Conflagration of this Wood there is onely the Fire that *Acts*, which being Hot, Light, and Dry, cannot produce such Things as are contrary to it self.

Here *Experience* was alledg'd against him; which evidenceth that Water upon the Fire is turn'd into Vapour, and then into Air, that Air is turn'd into Fire; and so of the other Elements. But he reply'd, That the Water is not turn'd into Vapour, or into Air; but the Fire insinuating and joyning it self with the Water, frames that *Vapour*, compos'd *Actually* of Water and Fire. Whence when you put a Cover upon a Dish of hot Viands, the Particles of Fire which are in those Vapours, being subtle, pass through the Pores of the Cover, and sever themselves from those of the Water; which being unable to pass through too, by reason of their grossness, they adhere to the upper part of it. In like manner, said he, when the Air seemes set on fire, 'tis not chang'd or turn'd into Fire; but onely the Particles of Fire which were dispers'd here and there in the Air, become collected and united together. And when the Fire disappears, it proceeds from its Particles being diffus'd amongst the other Particles of Air, Water, and Earth.

The Last strengthned this Opinion, saying, That the pure Elements have the same Proprieties that are attributed to the *First Matter*; and (amongst the rest) fall not under the perception of Sense. Yea, that 'tis as hard to see a pure Element, as to see the *First Matter*. For the Elementary Fire (*ex gr.*) cannot be expos'd to the Air, nor the Air to the Water, nor the Water to the Earth, (and much less those which are contrary to one another) without being *alter'd* by their mutual *contract*, that is to say, without losing their Nature of Element; which, moreover, cannot be known by the Senses, unless by its *Second Qualities*; which arising from the mixture of the *First*, it follows that the Elements which have no other cannot be the object of our Senses. For the *First Qualities* would not be perceptible by our Senses, if they lodg'd in a *Simple Element*. As it appears by the flame of *Aqua Vitæ*, which burnes not by reason of the thinness of its Matter; By *Ashes*, which while it is making, is more *Light* then heavy; By the *Aire*, which *dryes* instead of moistning, and yet is call'd the *First Humid Body*; And by *Water*, which following the qualities of the Neighbouring Bodies, shews that it cannot be term'd of it self either hot or cold.

At the Second Hour it was said, That the Perpetual Motion to which this Hour was design'd, is not meant of *Motion to Substance*, which is *Generation* and *Corruption*, by reason of which *Compound'd Bodies* are in Perpetual Motion; For in *Corruptible Things*, every Moment is a degree of Corruption. Nor is it meant

II.  
Of Perpetual  
Motion.



*Id quod in-  
ferius est si-  
cut illud  
quod est  
superius.*

meant of *Motion to Quantity*, which is *Augmentation* and *Diminution*; nor of that which is made to *Quality*, which is *Alteration*, but of *Local Motion*. And again, the Inquiry is not about the possibility of *Local Motion* in Animals, nor about running-water, or Fire, to whom it is natural; as appears in Mills which are upon Rivers, and Turn-spits, or Engines, which the Smoke causeth to turn about. Wherefore his Invention who exactly fastned a Girdle to his skin, which rising and falling as he took his breath, serv'd for a perpetual spring to a Watch that hung at it, (which by that means needed not winding up) was not the Perpetual Motion which we mean. No more was that which proceeded from the wings of a little Wind-mill, plac'd at the mouth of a Cave, which the Vapour continually issuing forth, caus'd alwayes to move. But it must be in a subject *naturally* unmoveable, made by *Art* to continue its Motion: And this is prov'd possible, I. Because, as *Hermes* saith, That which is *below* is as that which is *above*; Now we see *above* the Perpetual Motion of the Heavenly Bodies, by example of which it is certain that this Motion must be Circular. In the Second place, Nature hath not given us a desire of Things impossible. Now, an infinite number of good wits shew by their search the desire which they have of it. Thirdly, it is held that *Archimedes* had it, whence it was feign'd that *Jupiter* was jealous of him. In the Fourth place, it seems that if a very uniform Circle could be put exactly upon a Pivot or Spindle, and were set in Motion, it would never stop any more then the Heavens, because it doth not poise or gravitate upon its Centre, so long as it is turning, (as it appears by a Stone, which poiseth not in the Circle made on high in turning it round) and so nothing resisting the external Agent, the Motion must last as long as the impression lasteth; and the impression must last alwayes, because nothing resists it; but on the contrary, the Agitation continues it. Thus of all the Models of Engines, contriv'd to move perpetually, we see not one that makes so much as one turn; Whereas a plain wheel makes above a thousand, though it be not exactly plac'd upon its Centre, and the Poles be not two simple points as they ought to be, if that Art could come to perfection; in which Case the effect of Perpetual Motion would follow.

The Second said, That he held it for impossible, for that it is repugnant, not onely as to the Efficient Cause, which being limited and finite cannot produce an infinite Effect; but also as to the very form of that Motion, which must be either *Direct*, *Circular*, or *Mixt*. If it be *Direct*, it will be made from one term to another, in the one of which its Motion ending, it cannot be perpetual. And because the most certain Principle of this *Direct* Motion cometh from Gravity, which tendeth from high downwards; when it shall be arriv'd there, nothing will be able to mount it up again, Gravity having found its Centre and place; or if the Motion be violeut, the impression being ended, it can-

not



cannot re-produce it self of its own accord in the Engine ; (otherwise, it would be animated ) and therefore it will cease from Motion. If the Motion be *Circular*, (as in this effect it would be the most proper in imitation of that of the Heavens) this moving Circle shall be in all parts either of *equal*, or *different* weight. If it be *equal* throughout, it shall not turn at all of it self, one part having no advantage over another ; If it be *unequal*, and there be put (for example) four pound to raise up three, it will happen that when the greatest weight hath gotten the lowest place, the lighter parts will not be able to raise up the heavier ; and so the Motion will have an End. Now if the Direct and Circular Motion are incapable of this perpetuity, the *mixt* or compounded of both shall be so too. So that it seemeth impossible, by reason of the gravity of the matter (not to mention its corruptibility) to compose a Machine or Engine that moves alwayes. And were there any ground to think of it, some have conceiv'd it might be done with the Load-stone, which hath a Virtue of attracting to it self on one side, and driving away on the other, and so by continuing this little Motion ( which would be of no great benefit) it might render the same perpetual. But you ordinarily see that they who make these inquiries, onely find *rest* in their Engines and *Motion* in their brains, whereas they hop'd the contrary.

The Third said, That it appears by that which they call the *Roman Balance*, that the same weight hang'd neer the Centre, weighes less then when it is more distant from it. Consequently that disposing the weights which shall be round a wheel, so as to be neer the Centre about one half thereof, and distant from it the other half, you shall have a *Perpetual Motion*, which ought not to be accounted the less *such*, though the Matter should last but a year, yea but a day ; it sufficing for a night to *that name*, that it lasts as long as its Matter ; as 'tis seen in the Vice of *Archimedes*, termed *without End*, though it be made but of wood ; not by reason of its lasting, but because the Vice being apply'd upon an indented wheel, instead of entring into a screw, there is no raising or letting it down, as is practis'd in those of Presses.

He prov'd it further, For that it is seen that by the help of that Vice *without End*, by the instrument term'd *Polyspaston*, and others of the like Nature, a Child may easily lift up a weight of 10000 pounds ; Yea, even to Infinity, could the strength of the Cordage and the Instruments bear it. For it follows that if a less weight can lift up a greater, this greater will lift up a less ; which will be the *Perpetual Motion* which we inquire after.

The Fourth reply'd, That this Motion seemed to him impossible to find, not for its being unprofitable (for it would be one of the greatest helps that Art could afford Man, to ease him in his labours) but because there is in all Arts some thing of impossibility ; as the Quadrature of the Circle in Geometry, in Rhetorick the perfect Orator, the Philosophers Stone in Chymistry,

the



the Common-wealth of *Plato* in Polity, and in the Mechanicks Perpetual Motion. And whereas it is said that a less weight or less strength can lift up a greater, this is to be understood *in more time*: So that what is gotten in strength is lost in time; which comes all to one. For Example, *one Man*, or *one hundred weight*, shall raise as high *in one hour*, as much weight as *four Men* or *400. weights* shall raise in a *quarter of an hour* by any Mechanick Invention whatsoever.

The Last Hour was employed in the mentioning of some Engines which had some likelihood of moving themselves endlessly; And amongst others, it was propos'd, That a Wind-mill having a large wing, which the wind should alwayes drive behind, as it doth weather-cocks, and by that means alwayes present its four ordinary sails to the wind, might lift up so weighty a burthen whilst the wind blows, that the same burden coming to descend while the wind ceaseth, would cause a Motion of Continual Duration. Which also may be more easily practis'd in a Perpetual Fountain, by help of a Great Reservor which should be fill'd by help of the wind, and be emptying it self all the time that it bloweth not.

One Demanded, Whence it cometh that some are inclin'd to Mechanicks, others onely to Contemplation and Literature. It was answer'd, that this proceeds from the Resemblance which their Mind hath with the Things which they affect. The time being past for this Conference, this Question afforded the Subject to the next, for the first point concerning *Resemblance*, and chiefly that of kinred one to another; And for the Second, *Whether Letters ought to be joyn'd with Armes*.

## CONFERENCE V.

I. *Of Resemblance.* II. *Whether it behoveth to joyn Armes to Letters.*

I.  
Of Resem-  
blance.

UPON the First, It was said, That there are Three Sorts of *Resemblance*, viz. Of *Species*, of *Sex*, and of *Aspect*. The Resemblance of *Species* comes from the Univocal Cause determined to produce an Effect like to it self. That of *Sex* comes from the Predominancy either of the Masculine or Feminine *Geniture*, or from the weakness of both: The End of Nature being alwayes to make a perfect work, viz. a *Male*; to which if she cannot attain, she maketh a *Female*. The Resemblance of *Aspect*, (or individual) which is that we are speaking of, comes from the *Formative Virtue* inherent in the *Geniture*, which being like a Quintessence or Extract not onely of all the parts which contribute to its Generation, but also of the Spirits which accompany, move and *inform* it in some manner; it is not to be wonder'd



der'd if what is produc'd thereof bear their image and likeness, as the *Visible Species* representeth the luminous or coloured Thing from whence it proceedeth. To which if the *Imagination* also concur, it sends still to the *Fetus* more Spirits then there were before; which being the Principal Artificers in Formation, imprint a shape or figure upon it like the Body from whence they streamed, and of which themselves partake in some sort; As the Water which issueth out of Pipes, though it spout far, retaineth the form thereof. The strength of which Imagination is too great to doubt of; being such as it is able to change the colour of a Child, and to cause some to be born all *hairy*, by the sight of the like Objects: Of which the marks which are imprinted on the Bodies of Infants in the womb of their Mothers, through some such Imagination are sufficient proofs, and that in Brutes too.

The Second said, That indeed this is an Effect of the Imagination, seeing *Galen* having caus'd the picture of a white Child to be hang'd at the beds-feet of a *Moor-Lady*, she brought forth a Child of the same colour. And besides the Example of *Laban's* sheep, which brought forth *streaked* young, by reason of the Rods of that colour plac'd in their drinking-troughs; Experience of Hens, who bring forth white Chickens if they be cover'd with Linnen while they brood, verifieth the same. The way that that Faculty produceth such an Effect is thus. The Animal Spirits which reside in the Brain slide thence into the whole Body, but especially into the Matrice, by reason of the near Sympathy which is between them by the Nerves of the Sixth Conjunction which unite them, and render Women subject to so many several accidents, whereof the field of Nature is too fertile. The Spirits then imprinting their qualities into that solid part, it serves as a mould for the forming of the tender Embryo. Which is not to be understood of *Simple* Imagination, but of those upon which the Mind maketh a vehement and constant reflexion.

The Third said, That if the Imagination contributed any Thing to the Resemblance, we should see no unhandsome Children. For could a Man beget what he would, he would alwayes make it resemble some fair Idea in his Imagination. Besides, this Faculty can have no influence, saving at the moment of the *Act*, or during the *bearing*. Not in the former, for nothing acts upon that which is not. Now the Parts exist not yet during that *Act*. Not the latter, for the parts are then already form'd. It will then be demanded in what time of the *bearing* this Imagination hath power. If it be said in the former part, it is held that the parts expos'd to our view are not then form'd, and yet 'tis in those that Resemblance is observ'd: But in those first dayes onely the Principal pars, *viz.* The Liver, the Heart, and the Brain are form'd. If you will have it to be in the latter dayes, the Soul being by that time introduc'd,

E

which



which is its true form, and imprints upon the body the traces of the *Inclinations*, it cannot thence forward be susceptible of alterations by a meer fancy. Now that the manners of the Soul follow the External Form of the Body, appears by Physiognomy wholly founded upon that Principle.

The Fourth argued that the Geniture is the superfluous aliment of the Third Concoction, which proceeding from all the parts of the Body retains the Characters of the same, and imprints them upon the Body of the Embryo; And hence come hereditary diseases, as also the usual Resemblance of Twins: And such is the Law of Nature, that Children resemble their Fathers and Mothers just as Plants do the Plants which produce them. As for the unlikness, it comes usually from the diversity of the Genitures of Father and Mother, which make a Third Temperament; as of the colours yellow and blew mingled together is made a green.

The Fifth attributed the Cause to the divers Constellations; because seeing all the alterations which happen here below cannot, said he, proceed but from Heaven or the Elements, there is no probability in attributing them to these latter; otherwise they would be both Agents and Patients together: And besides, if the Elements were the Efficient Cause of the Mutations which come to pass in Nature, there would be nothing regular, by reason of their continual Generation and Corruption. Wherefore 'tis to the Heavens that it ought to be ascrib'd: And as the same Letters put together in the same order make alwayes the same word; So, as often as the principal Planets meet in the same *Aspect*, and the same Cœlestial Configuration, the Men that are born under such Constellations, are found alike. Nor is it material to say, (though 'tis true) that the Heavenly Bodies are never twice in the same situation; because if this should happen, it would not be *Resemblance* longer, but *Identity*, such as *Plato* promised in his great Revolution after six and forty thousand years. Besides, there is no one so like to another, but there is alwayes found more difference then conformity.

The Sixth affirm'd, That the same Cause which produceth the likeness of Bodies is also that which rendreth the inclinations of Souls alike, seeing the one is the Index of the other. Thus we see oftimes the manners of Children so expressely imitate those of their Parents of both Sexes, that the same may be more rightfully alledged for an Argument of their Legitimacy, then the External Resemblance alone, which consists onely in colour and figure. This makes it doubtful whether we may attribute that Resemblance to the Formative Virtue: Otherwise, being connex'd as they are, it would be to assign an Immaterial Effect (as all the operations of the Rational Soul are) to a Material Cause.

The Seventh ascrib'd it to the sole vigour or weakness of the Formative Virtue, which is nothing else but the Spirits inherent in



in the Geniture, and constituting the more pure part of it ; The rest serving those Spirits for Matter, upon which they act for the organizing it, and framing a Body thereof. Now every Individual proposing to himself to make his *like*, he arrives to his End when the Matter is suted and possess'd with an Active Virtue sufficiently vigorous ; and then this likeness will be not onely according to the Specific Nature and the Essence, but also according to the *Individual* Nature, and the Accidents which accompany the same. This seems, perhaps, manifest enough in that First Degree of Children to Fathers ; but the difficulty is not small, how a later Son that hath no Features of his Fathers Countenance comes to resemble his Grand-father or Great Grand-father. The Cause, in my Judgement, may be assign'd thus. Though the Geniture of the Ancestor was provided with sufficient Spirits to form a Son like himself, yet it met with a Feminine Geniture abounding with qualities contrary to its own, which infringing its formative vertue, and check'd the Action thereof, hindring the Exuberance of its Spirits from attaining to frame such lineaments of the Countenance as Nature intended : or else it met with a Matrice out of due temper by some casual cold, though otherwise both the Genitures were laudably elaborated. For when those Spirits, or Formative Virtue, become chil'd and num'd, they shrink and retire into their mass ; as he that is cold to his bed ; and wanting heat, in which their Activity consists, they remain in a manner buried, and without Action, in reference to this Resemblance : And nevertheless there is left enough to make a Male like to the Father, as to the species. This Son thus form'd comes to Age to Generate, and meeting with a Feminine Geniture proportion'd to his own in vigour and strength, and a Matrice proper to receive them, those Spirits of his Father, which till then lay dormant, are awaken'd to Action ; and concurring from all parts of the Body suddenly impregnate the Geniture of the Immediate Father, having by their long residence in the corporeal mass been recruited, refined, and elaborated : And as old Wine surpasseth new in strength and vigour of Spirits, because it hath less Phlegme ; so those Spirits of the Grand-father having digested all the superfluous Phlegm wherewith those of the Father abound, are more strong then they, and win possession in the Geniture, for the forming and organizing of it according to the shape of the Body from whence they first issued.

The Eighth said, That he was very backward to believe that any Thing of our Great Grand-fathers remaineth in us, seeing it is doubted, upon probable grounds, whether there remaineth in our Old Age any thing of our Child-hood ; and that the Body of Man, by the continual deperdition of its Three-fold Substance, Spirits, Humours, and solid parts, is like the ship *Argo*, which by the successive addition of new matter was the same, and not the same. That he conceiv'd not yet how the Geniture can proceed from all the parts ; seeing Anatomy teacheth us,



that the Spermatick Veines derive it immediately from the Trunk of the Hollow Vein (*Vena Cava*) and the Emulgent; and the Arteries from the great Artery, (*Aorta*) conveying it to be elaborated in the Glandules call'd *Prostatae*; from whence it is set on work by Nature. The *solid* Parts can have no Influence upon it; for what humour or juice is brought to them for their nourishment goeth not away naturally but by sweat, insensible transpiration, and the production of hair. The Spirits are too subtle and dissipable to preserve in themselves a Character, and imprint the same upon any Subject. That Resemblance, in my Judgement, proceedeth from the natural heat which elaborateth and delineateth the Body of the Geniture, and by it the Embryo; First with the general Idea of its species, and then with the accidents which it hath, and which it borroweth from the Matrice, from the menstruous blood, and the other Circumstances requisite to Generation; and when chance pleaseth, there is found a likeness to the Father, Mother, or others. Which Circumstances being alike in the Formation of Twinns, cause them to resemble one another; unless when the Particles of the Geniture (which is sufficient for two) are of unlike Natures, and are unequally sever'd by the natural heat: So that (for Example) the milder and more temperate Particles are shar'd on one side; and on the other, the more rough and bilious; As it hapned in *Jacob* and *Esau*, the former of whom was of a sweet, and the other of a savage humour; and their Bodies as different as their Manners. One the contrary, many resemble one another in Countenance, who are nothing at all related; as *Augustus* and that young Man, who being ask'd by the Emperour whether his Mother had never been at *Rome*, answer'd, No, but his Father had; And the true and false *Martin Guerre*, who put a Parliament, their Wife, and all their kinred, to a hard task to distinguish them.

II.  
Whether Letters  
ought to  
be joyned  
with Armes.

The Second Hour, design'd for treating of the Conjunction of Armes and Letters, began with this discourse; That Armes seem not onely unprofitable, but contrary to humanity, since their End is the destruction of Man. That among the rest, the Gun, invented by a Monk nam'd *Bertol*, in the year 1380. hath caus'd the death of too many persons, not to be in horreur to the living; from which the most valiant cannot secure himself: And if they be compar'd to the studies of humanity, they are so far distant from them, that the Beginning of the one is the End of the other; The clashing of Armes, as *Sylla* said, hindring attention to Lawes. And comparing them together, that French *Hercules* who drew men to him with chains of Gold, subdu'd them much better, winning their Bodies and their Hearts; then that other subduer of Monsters whose victory extended but to the one half. That *Archimedes* defending *Syracuse* by his skill against the Army of *Marcellus*, seemes to void the Question. But on the



the other side; since the point of Wit wins not the Victory now a dayes, unless it be joyn'd with that of the Sword; And that, on the contrary, Armes command over all; it is certain that a City full of Philosophers, that knew not how to help themselves with Armes, would be taken by a Regiment of Souldiers ignorant of Letters; and that of all the Lawes there is none more peremptory then the Gun: Which is signifi'd by that Devise which our Cannons of the new casting have graven upon them, *Ratio ultima Regum*. Moreover, we see that the *Turks* (whose Political Maximes are as good for the preservation and increasing of their Empire, as their Religion is bad for the attaining to that of Heaven) excepting what little needs to instruct the few Fryers they have in their Mosques, and less the Judges in their Tribunals, scorn all Learning, and teach their people no other Science but Obedience and Contempt of Death. While the *Greeks* and the *Romans* did the same each of them got and kept a Monarchy: As on the contrary, their declining hapned when their skilfulness in all Sciences was risen to the highest point: Having ceas'd to do well, when they addicted themselves too much to speak well. So greatly doth Literature intenerate and soften Hearts, effeminating those that apply themselves thereto; whether by their Charm, or by the too great dissipation of Spirits requir'd by the assiduity of Study and Contemplation; which almost draws the Soul out of the Body, and notably weakneth its ordinary functions. Whence it comes to pass that studious Men have not onely their Sight and all other Senses, but also the Members of their Body, more weak, how good soever their natural temper be; which is strengthened by the exercise to which they are oblig'd who practise other Arts, and especially that of War, an Enemy to Sedentary Life. Nevertheless coming to consider the Advantages which *Alexander* drew from the precepts of *Aristotle*; *Cesar* from his own Eloquence and the Mathematicks, for the making of Speeches to his Souldiers, building of Bridges, and besieging of places; That without Astrology, which inabled *Christopher Columbus* to foresee an Eclipse of the Moon, in the year 1492. whereof he made use to frighten the Americans extremely, his Enterprize had perish'd. In brief, that that brave King of *Sweden*, Conquerour during his Life and after his Death, so happily joyned Letters to Armes; I conclude for their Conjunction, authoriz'd by that excellent Sentence, That the Nations are happy whose Philosophers are Kings, or whose Kings are Philosophers; and confirm'd by the Example which the admirable Government of this Kingdom affordeth.

The Next said, That if it behoveth to marry the Sciences to Armes, it must be because Learning maketh the Souldier either more honest, or more valiant and couragious, or more dextrous and warlike. Now they have none of these Effects; not the former; For, on the contrary, the most favourable Sentence that can be pass'd upon Learning, is, to say that it is neither good

nor



nor bad of it self, but leaves the Will of the possessor in the same posture that it found it. The most moderate Detractors alledge that Knowledge puffeth up; Now Presumption conduceth not much to the Amendment of Life. Others go so far as to maintain, That Simplicity and sweetness of Manners is not found usually with great Learning; according to that Sentence which the Company will permit me to alledge in its own Language, *Postquam docti prodierunt boni desunt*. Moreover S. Paul dissuades us as much as possible from Philosophy, which he calls *vain*, adding that such as would know too much must be rejected from the Church: And as the Shoo-makers are commonly the worst shod, and the richest the most covetous; so they that know the most good are willing to do the least. Now if this be true in persons of the highest form, is it to be hop'd that a Souldier whose inclinations are usually not too devout, should become an honester Man after he has studied? But besides, he will become as little valiant and couragious thereby; Reason requiring, that the more a Man knows dangers and inconveniences, the more shy and backward he is to venture amongst them; And Experience shewing that the softness of studies is incompatible with the warlike ardour and martial humour. Of which *Marius*, and other Roman Captains, not ignorant (no more then those at present) did not go to the Schooles to choose their Souldiers, but into the Shops and Villages: Which caus'd *Licinius* and *Valentinian*, Emperours of *Rome*, to say, That their State had no Poyson more dangerous then Learning. The Greeks by being too much addicted thereunto, were easily subdu'd by the *Goths*, who understood nothing but to kill and burn; and yet were not so ignorant as to take from the *Greeks*, overcome by them, the use of Learning: for fear lest coming to themselves they might easily shake off their yoke. They left them their Libraries entire, to continue their exercise therein peaceably. So long as the *Spartans* flourish'd, they had no other Academies but of Valour, Prudence, and Justice. The *Persians* had no other Schooles but the practice of Vertue, whereof onely the name and definition is known in ours, which afford nothing but unprofitable tattle. Lastly, Study, as 'tis vulgarly practis'd at this day, instead of rendring a Man better behav'd, imprints upon him the manners of the Colledge, insupportable to all the world, and rendring the name of Scholar odious. Few people have less discretion then they; most beggars ask Almes in Latine; and this Language is more common to *Bedlam* then to any other place.

The multitude and earnestness of those who vigorously maintain'd the Cause of Learning, hindred the distinct Recollection of all their Reasons; but they may be reduc'd to these. Armes destitute of Letters, have more of the Brute then of the Man: the ignorance of danger not deserving the Name of Valour, but that onely which sees the danger, and despises it in comparison of the honour



honour which it expects from victory. What a glory would be added to the Gown, if, in imitation of those brave Roman Consuls and Senatours, a President or Counsellor were seen carrying the Flower de Luce beyond our Frontiers in the head of an Army, and the other Officers by their Example? Armes making Laws respected, and Laws polishing Armes.

The Inventions were very different, yea, diametrically opposite; one amongst the rest propounding a way to build an impregnable Fortrefs, another an Engine to which nothing could resist: And the Matters of the next Conference were the *Universal Spirit* and *Fire*.

## CONFERENCE VI.

### I. Of Fire. II. Of the Universal Spirit.

UPON the First Subject it was said, That there is no *Elementary Fire*, and that this Opinion doth not destroy the *Four First Qualities*; Seeing Heat may be without that Fire, as in the Sun. Moreover, that supposed Elementary Fire cannot be under the Moon. For if it were, the Refraction, or Parallax caused by it, would cause the Stars to be seen in another place then they are, and of different Magnitudes; As the Opticks clearly demonstrate to us, and justify by the experiment of a piece of Money put into a Basin, which we behold not, by reason of the interposition of its sides; and yet it appears when you put water into the Vessel: Because the *Visual Ray* is alwayes broken, and makes an Angle when it passeth through a *Medium* of differing thickness, as the Air and the Water are; and as the Air and the Fire would be, through which the Stars must be seen; and consequently we should not see them in their true place, when they are out of our *Zenith*; in which alone the *Visual Ray* is not broken. But this the Prediction of Eclipses to a set moment, convinceth to be false. In the Third Place, That Fire, being but an *Accident* cannot be an Element. That it is but an Accident, appears by a combustible Body; in which, for the kindling of Fire, there is nothing else introduc'd but a great heat. In the Fourth Place, This same Fire being produc'd by an Accident, as by the *Motion* of some Body, cannot be a Substance; For Accidents do not produce Substances. Lastly, we are compos'd of the same Things by which we are conserv'd, and yet there is no Animal that lives of Fire, as of the other Elements; that which is said of the Flies called *Pyraustæ* being but a Fable. Besides, 'Tis hard to conceive how Fire being in that High Region could concur to all kinds of Generation. And therefore, if there be any Fire that enters into the Composition of mixt Bodies, 'tis

Is  
Of Fire.

only



onely the heat of the Sun which quickens and animates all things.

As for our common Fire, they say it is *light* and *dry*. But for the *former*, as they do not prove it but by the *Sight*, which beholds it ascend; so the same *Sight* sees it descend in a Candle, in Wood, and other Matters, which the Fire consumes from the top to the bottom: And therefore of it self it is indifferent to all Motion, and follows its Aliment upwards, when it mounts thither by its rarefaction, and downwards when the same is detain'd there by the gravity of its Matter. And though it should ascend above the Air, yet would it not follow from thence that it is light, but onely less ponderous then the Air which thrust it out of its place; as the Earth doth the Water, and the Water the Air. Besides, whereas the Fire imparteth ponderosity, as is seen in *Calcined Lead*, it cannot be said to be Light. Next, to say that Fire is *dry*, I account not less strange. For it cannot have Siccity, since it introduceth it not actually into Bodies; but when it drieth any humid Body it doth nothing else but take away its humidity, which being separated from that Body, it remains in the Siccity which was there before, (but appeared not by reason of the predominancy of its humidity;) and consequently is not introduc'd anew by the Fire. Besides, by the definition which *Aristotle* gives of *Humid*, (*viz.* That it is that which is easily contain'd in an other, but hardly in it self,) the Fire should be more humid then the Air, yea, then water it self.

The Second said, That Fire is neither Element nor Substance. For Qualities are perceiv'd by every Thing's manifesting those of the Element predominant in it, and whereof it is compos'd. *Terrestrial* Bodies, as Stones, Metals, and Minerals, are actually cold and dry to the touch. *Aquatick*, as Fish and Fruits, are cold and moist. *Aerial*, as Oyle and Wood, indifferent, sometimes hot, sometimes cold, according to the disposition of the place where they are. Animals alone are actually hot, but they derive that heat solely from the Soul. We see nothing in the World actually hot of its own Nature. Why then should we establish an Element, of which we can have no tidings? As we have of the other Elements, of which some would make it a companion; contrary to the Maxime, which alloweth not, *That Entities be multiply'd in Nature without Necessity*. 'Tis of no validity to object the actual heat of Mineral Waters. For the least Curious know the cause thereof to be this; that those Waters passing through Mines of Sulphur or Bitumen, imbibe the Spirits thereof; which by the Motion of the Water are heated accidentally: As appears in that being taken out of their own place, they presently lose that heat; which shews that this heat is no part of them, but is derived elsewhere. Moreover that *Sublunary* Fire would be to no purpose. For either it would descend to enter into the composition of Things with the rest, or not. If it descend, that is against its Nature, which is (as they commonly say) *light*, and alwayes tending upwards; besides it



it would consume all by its great Activity. If it descend not, it would be unprofitable to the World, and so not Element. For neither Man, nor the other mixt Substances which are generated, go to seek it in the Circle of the Moon. Besides, Generations are made without it by the heat of the Sun. For, in the First Place, *Humidity* is requisite thereto, for the uniting and binding together of the Matter, which otherwise would be dust; and that Humidity the Air or the Water affordeth. In the Second Place, such Matter, united by Humidity, is made close, firm, and compact, by the *coldness* of Water, the propriety of which is to congeal. In the Third Place, the *driness* which the Earth contributes gives it a consistence and permanent hardness; And, lastly, the heat alone of the Sun digests all this together, and unites it very perfectly without need of any other Fire. I confess, indeed, that we have Fire, but it never enters into the composition of Natural Things; nor ever was it a Substance, because Two Substantial *Formes* cannot be in the same Subject; and yet the true *form* of Fire is in a hot Iron, together with the Substantial Form of the Iron: Which shews that Fire is but an *Accidental* Form, which is consistent with the Substantial, as the Servant with her Mistress. Moreover (according to *Aristotle*, l. 2. Of Generation and Corruption.) Fire is nothing else but an *excess* of heat, which is a meer Accident, as well in its little degrees, as in its excesses; *More* and *less* making no change in the species. Our Fire then is an *excessive* heat, which adheres to Things that have some crass and oleaginous humour in them; and continues there by a continual efflux and successive Generation, without any permanence, like the Water of a River; which Heat lasts so long till that humour be consumed. If it be said that it ascends upwards seeking its own place, I answer, that 'tis the Exhalation that carries it up; yea, that it descends too; as we see in a Candle blown out, and still smoaking, if it be held beneath another burning one, the flame descendeth along the smoak, and lighteth it again: So that the Fire is indifferent of it self where it goes, for it lets it self be govern'd and carry'd by the Exhalation. And it appears further, That Fire is less *subtile* than Air; for flame is not transparent, and it engendreth soot, which is very gross.

The Third added, That indeed Fire cannot be a Substance, because it hath a *Contrary*, viz. The Water. Besides, every Substantial Form preserves its own Matter, and acts not against it; but Fire destroyes its own. Moreover, a certain degree of some *Quality* is never necessary to a Substantial Form; as the Earth ceaseth not to be Earth, though it be less cold or dry; and so of the rest: But Fire cannot be Fire, unless the supreme degree of heat be in it. Add hereunto, that Fire may be produc'd in a Substance without corrupting it, as we see in a Flint, or a burning Bullet: Now a Substantial Form is not produc'd in a Subject, till the *preceding* be destroy'd; the Generation of the



one being the corruption of the other. Lastly, Every substance produceth, by way of Generation, an indivisible substantial *Form*; But Fire produceth a divisible *Quality*: For that which was cold becometh first warm, then hot, and by degrees becometh Fire; which cannot be with a mixture of cold, nor consist therewith, unless as degrees of qualities.

The Fourth said, That Fire is a most perfect Element, *hot* and *dry*; according to *Aristotle*, of the most perfect *form* and activity of all the Elements; according to *Plato*, the principal instrument of Nature; according to *Empedocles*, the Father of Things. Whence it was that the *Assyrians* ador'd it. The *Persians* carry'd it out of Honour before their Kings, and at the head of their Armies. The *Romans* made so great account of it, that they assign'd it to the care of certain Virgins to be kept immortal. *Pythagoras* believ'd it to be an Animal, because it is nourish'd as Animals, and for want of Aliment dyes; And because a lighted Torch being cast into the Water, the Fire extinguishing, sendeth forth such a noyse as Animals do at the gasps of Death. But he esteemed its natural place to be the Centre of the Subterranean World. Whence it is (said he) that we see so many *Volcanoes*, and other Fires issue out of the entrals of the Earth; as those of *Monte Vesuvio*, in the Kingdom of *Naples*, *Monte Gibello*, (formerly *Ætna*) in *Sicily*, and *Monte Hecla* in *Iceland*, and so many other burning Mountains.

The Fifth said, That as the Sea is the Principle from whence all the Waters come, and the end whether they return; So the Sun is the Element of Fire, from whence all other Fires come, and whether at length they reascend as to their Source. 1. For that all Effects, Qualities, and Properties of Fire, agree particularly to the Sun; seeing he heats, burnes, dryes, and is the cause of all the Generations that are made here below. 2. Because the Elements stay in their natural places. Now the Fire not onely ascendeth from the Subterraneous places where it is detain'd, by reason of a sulphureous and bituminous Matter which serves it for food, but it passeth also beyond the Heavens of the Moon, *Mercury* and *Venus*, as appears by Comets which are igneous, and particularly by that which appear'd in the year 1618. acknowledg'd by all the Astronomers, upon the reasons of Opticks, to have been above the said places.

The Sixth denied, That the Sun can be the Element of Fire. 1. Because 'tis a Cœlestial and Incorruptible Body, and by consequence not Igneous or Elementary. 2. If all Fires come from the Sun, it will follow that all his rayes are Igneous Bodies; for there cannot be imagin'd other Fires to come from the Sun hither, but his beams. Now the Sun-beams are neither *Bodies* nor *Igneous*. Not *Bodies*, since *Illumination* and *Eradiation* being made in an instant, it will follow that a Body cometh from Heaven to Earth in a *Moment*: Which is absurd, because *No Motion is made in an instant*. Besides, being those Rayes penetrate  
Glas,



Glass, and such other solid and diaphanous Bodies, there would be a *penetration of Dimensions*, which is impossible. Nor are they *Igneous*, seeing Fire being of its own nature light, descendeth not; but the beams of the Sun descend down hither. Moreover, Fire is *actually* hot, but the Sun-beams are onely *so in power*, viz. when they are reflected by an opaque body; as appears in the *Middle Region* of the Air, where it is colder then upon the Earth, though its beams are nearer. Wherefore it is more reasonable to hold to the common opinion, which placeth the Fire immediately under the Heaven of the Moon. For there is no fear, that that Fire, how great soever, can burn the World, its heat being allay'd and dull'd by the extreme humidity of the Air its Neighbour, and by the great coldness of the same Air, which is in the Middle Region; and counter-checketh that heat, which on one side hath already lost its violence and acrimony by its natural *Rarity*. Nor is there any trouble to be taken for its nourishment; for being in its own Centre and Empire it hath no enemies nor contraries, and needeth no food for its support; as our common Fire doth. What if we behold it not? 'Tis not because there is none, but because it is so *rare* and so pure that it cannot fall within the perception of our Senses: As there is such a thing as Air, though we *see* it not. How many Colours, Odours, Sapours, and Sounds are there which we never knew? And as for what is observ'd in a Candle newly put out, it is clear that the Fire descendeth not to it, but inflameth the unctuous Matter which it toucheth, and this the next, even to the Candle from whence that Matter proceedeth.

Upon the Second Point, it was said, That it must First be known what is meant by Universal Spirit. 2. Whether there be one. 3. What it is. As for the First, By the word *Universal Spirit*, is understood *some universal cause and principle* of all the actions and motions which are made in Generation. Just as they assign one same *First Matter*, for the *Subject* of all Formes, so they speak of an *Universal Form*, which contains all the rest in it self, and causes them to act and move in the Matter rightly dispos'd.

ii  
Of the Uni-  
versal Spirit.

As for the Second, Like as they argue, that the world is finite, round, and corruptible, because its parts are so; So also it may be said that the world hath a Spirit which enlivens it, since all its principal parts have a particular one for their Conservation, Action, and Motion; the *parts* being of the same Nature with the whole. This Universal Spirit is prov'd by the *impotency* of the Matter, which of it self having no activity or principle of Life and Motion, needeth some other to animate and quicken it. Now particular Forms cannot do that, for then they would be principles of that Virtue, that is to say, principles of themselves, which is impossible. Wherefore there must be some Superiour Form, which is the Universal Spirit, the principle of



Action and Motion, the Uniter of the Matter and the Form, the Life of all Nature, and the Universal Soul of the World. Whence it may confidently be affirm'd, that the World is *animated*; but with what Soul or Spirit is the difficulty. For if we prove by *Local Motion*, or by *that* of Generation, that a Plant or Animal are animated, why may we not say the same of all the World, since its more noble and principal parts afford evidence thereof? As for the Heaven and the Stars, they are in continual Motion, which the more sober Opinion at this day confesseth to produce from their Internal Form, rather than from the *Intelligences* which some would have fastned to the Spheres, as a Potter to his wheel. The Sun, besides his own Motion, which some call in controversie, gives Life to all things by his heat and influences. The Air, Water, and Earth, afford also instances of this Life in the production and nourishing of Plants and Animals. Thus the principal parts being animated, this sufficeth for the *Denomination* of the whole; seeing even in Man there are found some parts not animated, as the Hair and the Nails.

As for the Last Point, which is to know what this Universal Soul is, there are many Opinions. The *Rabbins* and *Cabalists* say that it is the *R U A H E L O H I M*, that is, the Spirit of God which moved upon Waters. *Trismegistus* saith, that it is a *Corporeal Spirit*, or a *Spiritual Body*; and elsewhere calleth it the *Blessed Green Wood*, or the *Green Lyon*, which causeth all things to grow. *Plato* affirmeth it to be the *Ideas*; The *Peripateticks*, a certain Quintessence above the Four Elements. *Heraclitus*, and after him the Chymists, that it is a certain *Æthereal Fire*. For my part, I conceive, that if by this Spirit they mean a thing which gives Life, and Spirit, and Motion to all, which is found every where, and on which all depends, there is no doubt but 'tis the Spirit of God; or rather God himself, in whom and through whom we live and move. But if we will seek another in *created Nature*, we must not seek it elsewhere than in that corporeal creature which hath most resemblance with the Deity; The Sun, who more lively represents the same than any other, by his Light, Heat, Figure, and Power. And therefore the Sun is that Spirit of the World, which causeth to move and act here below all that hath Life and Motion.

The Second said, That that Soul is a certain *common Form* diffus'd through all things which are moved by it; as the wind of the Bellows maketh the Organs to play, applying them to that whereunto they are proper, and according to their natural condition. So this Spirit with the Matter of Fire maketh Fire, with that of Air maketh Air, and so of the rest. Some give it the name of *Love*, for that it serves as a *link* or *tye* between all Bodies, into which it insinuates it self with incredible *Subtility*; which Opinion will not be rejected by the Poets and the Amorous, who attribute so great power to it.

The



The Third said, That the Soul being *the First Act of an Organical Body*, and the word *Life* being taken onely for Vegetation, Sensation, and Ratiocination, the world cannot be animated; since the Heavens, the Elements, and the greatest part of Mixed Bodies want such a Soul and such Life. That the *Stoicks* never attributed a Soul to this world, but onely a Body, which by reason of its *Subtility* is called *Spirit*; and for that it is *expanded* through all the parts of the world, is termed *Universal*, which is the cause of all Motions, and is the same thing with what the Ancients call'd *Nature*, which they defined the *Principle of Motion*. The reason of the *Stoicks*, for this Universal Spirit, is drawn from the *Rarefaction* and *Condensation* of Bodies. For if Rarefaction be made by the *insinuation* of an other *subtile* Body, and Condensation by its *pressing out*, it follows that since all the Elements and mixt Bodies are rarifi'd and condens'd, there is some Body more *subtile* then those Elements and mixts, which insinuating it self into the parts rarifies them and makes them take up greater space; and going forth is the Cause that they close together, and take up less. Now Rarefaction is alwayes made by the entrance of a more subtile Body, and Condensation by its going out. This is seen in a very thick Vessel of Iron or Brass, which being fill'd with hot Water, or heated Air, and being well stop'd, if you set it into the cold, it will condense what is contain'd therein, which by that means must fill less space then before: Now either there must be a Vacuum in the Vessel, which Nature abhorreth, or some subtile Body must enter into it, which comes out of the Air or the Water which fills that space; Which Body also must be more subtile then the Elements which cannot penetrate through the thickness of the Vessel. There is also seen an Instance of this in the Sun-beams, which penetrate the most solid Bodies, if they be never so little diaphanous, which yet are impenetrable by any Element how subtile soever.

And because a great part of the Hour design'd for Inventions was found to have slip'd away, during the Reciprocation of other reasons brought for and against this opinion; some curiosities were onely mention'd, and the examination of them referr'd to the next Conference. In which it was determin'd, first to treat of *the Air*, and then to debate that Question, *Whether it is expedient in a State to have Slaves*.

## CONFERENCE



## CONFERENCE VII.

I. *Of the Air.* II. *Whether it be best for a State to have Slaves.*

I.  
*Of the Air.*

THE First said, That he thought fit to step aside a little out of the ordinary way; not so much to impugne the Maxims of the School, as to clear them; and that for this end he propos'd, That the Air is not distinguish'd from the Water, because they are chang'd one into the other. For what else are those Vapours which are drawn up from the Water by the power of the Sun, and those which arise in an *Alembic*, or from boyling Water, if we do not call them Air? Now those Vapours are nothing but Water rarifi'd and subtiliz'd by heat; as also when they are reduc'd into Water by condensation, this Water is nothing but Air condens'd: And so Air and Water differ not but by Rarefaction and Condensation, which are but Accident; and consequently cannot make different species of Element. Both the one and the other may be seen in the *Aolipila* of *Vitruvius*, out of which the heat of Fire causeth the Water which is therein to issue in the form of Air and an impetuous wind; which is the very Image of that which Nature ordinarily doth. I conceive also that the Air is neither *hot*, nor *moist*, nor *light*, as Philosophers commonly hold. For as to the First, the Air is much more cold then hot, and for one torrid Zone there are two cold. Besides, Heat is but *Accidental* to it, being caus'd by the incidence and reflections of the rayes of the Sun; So that this cause failing in the night, when the Sun shines not; or in Winter when its rayes are very oblique, and their reflection weak; or in the Middle Region, whether the Reflection reacheth not, the Air becometh cold, and consequently in its natural quality, since there is no External Cause that produceth that coldness. As for the Second, The Air dryeth more then it moistneth; and if it moistneth, it is when it is cold and condensed, and consequently mix'd with many particles of Water; and when it dryeth, it is by its own heat. For the Definition which *Aristotle* giveth of Humid and Moist, is onely proper to every thing which is *fluid* and not stable, and in this respect agrees to the Air which is fluid, and gives way to all sorts of Bodies. As for the Last, which is its *levity*, the harmony of the world by which all things conspire to union, and so to one common Centre, seemeth to contradict it. For if the Air hath its Motion from the Centre, the parts of the world might be disunited; For the Air would escape away, there being no restraint upon it by any External Surface. Moreover, if we judge the Air light because we see it mount above water, we must also say that Wax and Oyle are light, since we observe the same in them. But that



that which they do is not mounting above the Water, but being repell'd by the Water: And so the principal of Motion being External, the same is violent and not natural. Whereas when the Air descends into the *Well*, it descends thither naturally, there being no External Cause of that descent. For Vacuum, not existing in Nature, cannot produce this Effect; Since, according to the received Maxime, *Of a Thing which is not there can be no Actions*. Besides it would be it self-cause of its own destruction, and do contrary to its own intention, preserving Nature by this Action; whereas it is an Enemy to it, and seeketh the ruine thereof. Lastly, Since many Particles of Air being condens'd and press'd together, give ponderosity to a thing, as is seen in a Balloon or foot-ball, it must needs be ponderous it self; for many light Bodies joyn'd together are more light.

The Second said, That the difference between Water and Air is as clear as either of those Elements; For that the Vapours which arise from the Water by means of the Sun's heat, and the wind which issueth out of the abovesaid Vessel full of Water, and placed upon the Fire, cannot be call'd Air, saving *abusively*: But they are mixts, actually compos'd of Water and Fire. For the rayes of the Sun entring into the Water, raise it into Vapour; And the Fire insinuating it self by the Pores of the Vessel into the Water which it containeth; causeth the same to come forth in the form of wind, which is compos'd of Fire and Water; Of Fire, because the property of Fire being to mount on high, it lifts up that subtiliz'd Water with it self; Of Water, because this Vapour hath some coldness and humidity; whence meeting with a solid Body it is resolv'd into Water, because the Fire alone passeth through the Pores of that Body. Besides, Water being moist, and Air on the contrary dry, as the precedent opinion importeth, they cannot be the same thing. And since all *Alteration* is made between two different things, Water and Air, transmuting one into another, as it hath been said, cannot be the same. Lastly, as there are two Elements, whereof one is absolutely light, as the Fire, the other absolutely heavy, as the Earth; So there are two which are such, but in comparison with the rest. The Water compar'd with the Earth is light, because it floateth above it: The Air in comparison of the Water is light too, because it is above it. So that when it descendeth lower then the Water into the Caverns of the Earth, 'tis Nature that obligeth it to renounce its proper and particular interest for preserving the general one, which is destroy'd by the Vacuum; not that the Vacuum is the Cause thereof, for it hath no existence. And the Air wherewith the Balloon is fill'd rendreth the same more heavy, because it is impure and mixt with gross Vapours; Which it would not do, were it pure and Elementary, such as is that of which we are speaking, which is not to be found in our Region. The Common Opinion hath also more probability, which holdeth that the Air is *hot* and *moist*; *Hot*, because it is

*rare*



*rare* and *light*, which are effects of heat; *Moist* because it is difficultly contain'd within its own bounds, and easily within those of another; Thence it is that the *more* Bodies partake of Air, the more they have of those qualities; As we see in Oyl, which is hot, being easily set on flame; And Moist, in that it greatly humecteth, and easily expandeth it self on all sides. But if the Air seemes sometimes to be cold, 'tis by accident, by reason of the cold vapours wherewith it is fill'd at that time.

The Third said, That he conceiv'd that contrarily the Air is *cold* and *dry*. 1. Because it freezeth the Earth and Water in Winter, and therefore is colder in either of them. 2. Because it refresheth the Lungs, and by its coolness tempereth the extreme heat of the Heart and of the other parts: which it could not do if it were hot. 3. Inasmuch as hot things expos'd to the Air are cooled, which they would not be, but at least preserve their heat being in a place of the same Nature. 4. The more it is agitated the more it refresheth (as we see by Fans) because then the unessential things being seperated from it, it is more close and united; quite contrary to the other Elements, which grow hot by being agitated. 5. In the night time, the more pure and serene and void of mixtures the Air is, the colder it is. 6. Thence it is that flame burnes less then boyling water or hot Iron, because in flame there is a great deal of Air, which being colder then Water and Iron, represseth more the strength of the Fire. Lastly, since, according to *Aristotle*, Air doth not putrifie, (what is said of its corruption, being taken improperly) it is for that it is cold and dry; both these qualities being Enemies to putrefication; As, on the contrary, Hot and Moist are friends to it, and the usual wayes that lead thereunto. Wherefore, if the Air were hot and moist, it would putrifie incessantly. Besides it would be easily inflam'd being so near Neighbour to the Elementary Fire, which could have no food more proper then it.

The Fourth said, 'Tis true, all Antiquity believ'd the Air *supremely*, moist and *moderately* hot. 1. For salving the Harmony of the Universe, the Air becoming symbolical with the Fire by its heat, and with the water by its moisture. 2. Because we see Heat produceth Air, which thence must have affinity of Nature with its progenitor. 3. It is *light*, and by consequence hot. 4. Experience sheweth us this in Winter time in subterraneous places, where the Air is hot; because the external cold, stopping the pores of the Earth, hinders the spirits of the inclosed Air from evaporating, and so it remains hot. But to the First Reason it is answered, That the Air, without being hot, sufficiently maketh good its party in the Harmony of the Universe; for by its humidity alone it symbolizeth with the Water and the Coelestial Heat, as is seen in Animals, wherein Moist and Hot make so useful a Mass. To the Second, That Heat produceth vapour too, which is cold. To the Third, That this cold vapour



vapour is light as well as a hot exhalation. To the Fourth, Experience is oppos'd to Experience. For in Summer the Air is cold in the Cavities of the Earth, as well as hot there in the Winter: Which proceedeth not from the Air, but from the sense; which whereas it ought to be void of the qualities of the object, is here preposses'd therewith. The Moderns affirm with more probability that the Air is cold. 1. Because in the Middle Region (where it is left in its proper Nature) it is such. 2. In the Northern parts remote from the Sun, its rigor hath such effect as to freeze the Sea, and even in our Countries we are sensible in Winter of the Sun, and yet in clear weather of great Frosts; To which it is answer'd: 1. That the Middle Region of the Air is not so cold of its own Nature, but by reason of the vapours which refrigerate it uniformly every where, though those vapours ascend not equally from the Water, but more in one place than in another; just as the heat of the Fire which is directly under the middle of the bottom of a great Caldron, yet heats it on all sides equally and uniformly. Also the coldness of the Air in the Northern parts, and in our Countrie, must necessarily be ascrib'd to a Constellation which is made when some Star exerteth a cold influence, and is not repress'd by the Sun, who then emits his rayes slopingly, and hath not reverberation strong enough from the Earth. This is prov'd by the Thaw, which is from the influence, (not of the Sun, for he is too weak; and it sometimes happens when he is less elevated above our Horizon, but) of some *hot Star*, which gaineth the ascendant over the *cold*. And indeed we see a Frost and a Thaw happen without any foregoing mutation in the Air, at least, that is sensible. I conceive then that the Air is neither hot nor cold, but indifferent to both. What it hath *actual* is its humidity, from whence it deriveth its great mobility. The reason is, for that the Air is the Universal Medium of all natural Actions, and the general interposer in all the transactions of Agents and Patients; for which office it ought not to be an Enemy to any of them. Now of Agents the most powerful are Heat and Cold. When Heat acts it consignes its *impression* to the Air to transfer the same by Propagation to the subject upon which it acts. But if the Air were Cold, instead of faithfully keeping and delivering the impression of Heat, it would abate and destroy it. On the contrary, if it were Hot, it would destroy the Cold Body which acteth, instead of assisting it in its action: Just as the Crystalline humour which serves as a Medium to the sight, hath naturally no colour, lest otherwise the Case would be the same as in colour'd glass, through which all objects that are seen borrow its colour; Or as in the Tongue, whose Taste being deprav'd, it judgeth all things bitter. But the Air being onely Humid, is the common friend of both parties; For Moist symbolizing both with Hot and Cold, fights against neither. The Air then is that Humid Substance which taketh no other figure, bounds, or inclosure, then

G

that



that of the Bodies which environ it; for the becoming most obedient, to which it hath an incomparable Mobility, Fluidity, and Flexibility; Which being consistent onely in a Humid Substance, it is by Humidity alone as its essential propriety actuated and informed.

II.  
*Whether it is  
best for a  
State to have  
Slaves.*

Upon the Second Point it was said, That Servitude is opposite to Dominion, which is of Two sorts; *Despotic* or Sovereign, and *Political* or Civil. The *former* is absolute, and with pure and full Authority commands without being liable to be ask'd a reason; For the pleasure of the Commander is *one*. The *Latter* oft times receives check in its course by the right which inferiours have to remonstrate, and also in certain Cases to declare to the Command. Such is that of a Master over a workman, or a hired domestick that is voluntarily subject for certain wages and time; and of this the Question now is not. The *former* is contrary to natural Law, introduc'd onely by that of Nations: For all Men being equal by Nature, there is no Natural Reason for rendering one person slave to another. Nevertheless Servitude may be term'd Natural, being founded upon the inequality of the sufficiencies and abilities of Men; Some being born with Organs so nimble and pliant, that their Mind acts almost Divinely; Others are so dull, that the Soul seemes mir'd in a slough. Moreover such as are made to obey have usually robust Bodies; And others born to command have weak and tender, as more futable and fit for the functions of the Mind.

This being premis'd, There is furthermore an *Absolute* Good, and a *Relative*. The Absolute is *such* in it self, and of its own essence, without borrowing elsewhere the reason of its goodness. The other is Derivative, and hath nothing but by *relation* to some other. Extreme Servitude or Slavery cannot be an Absolute Good, since it is contrary to Natural Right. But it is a Relative Good, in the first place, to the Slaves: For 'tis an *exchange*, made by the Conquerours Clemency, of Death into Servitude, to the benefit of the Captives; whose condition is better in living Servants then in dying Free-men. 2. 'Tis a Good to the Common-wealth; For as God draws Good out of Evil, so doth the Publick Service from those whom it might have put to death, and would not. 3. Their Example, and the terrible prospect of their condition, holds such in duty as Vice would otherwise drive on to the perpetration of mischief.

An other said, That Slavery is an Institution of the law of nations, by which one is, contrary to Nature, subjected to the Dominion of another; Which Dominion, before the Emperour *Antoninus Pius*, extended to Life and Death; But *since* that power hath been restrain'd, so that he that grievously outraged his Slave was forc'd to sell him. But if he kill'd him he incurr'd the same penalty as if he had slain the Servant of another: It being for the good of the Common-wealth, that none abuse even what belongeth



belongeth to himself. Since that time the Master had absolute Power over his Slave, to employ him in all kind of work, as he pleased, to hire him forth and draw profit by him; and in case of non-obedience to chastise him more or less according to the atrocity of his crime; Provided that there follow'd not thereby mutilation of Members. He hath also Power to alienate him, and that Power is extended likewise to the Children which happen to be begotten by him during the servitude. The Slave also cannot acquire any thing, but it is his Master's. Nor can he complain of his master, or forsake him for having been lightly punish'd: But he may for mortal Hunger, or grievous Contumely; as if the Master offer to force his Slave, in which case the Slave [of either Sex] running to the Temples, Sepulchres, and Statues, which serv'd them for Sanctuary, ought to be sold, and his price paid to the Master. Now there are Four sorts of Slaves: The *First* and most ancient are such as have been taken in war, who of Free-men, (as they were before) being conquer'd become in the power of the Conquerours. The *Second* are those who having deserved Death are condemned to the punishment of the Gallies, Common-shores, and publick works, and anciently to the Mines and Mills: (in which Mines the Spaniards at this day employ the Americans) And they are called *Forcats*, or *Slaves of punishment*. The *Third* are those who being unable to satisfy their Creditors by reason of their poverty, are sold with their own consent, and pay the price of their liberty to be acquitted by them, that so they may avoid the cruelty of the said Creditors, who had to dismember them. These three sorts of Servants became such, having before been free-men. But the *Fourth* sort is of those that are such by Nature, and are born Servants, being descended from a Slave. Now, in my Judgement, 'tis fitting to introduce and retain these four sorts of Servitude in a State, since they are very natural and reasonable. For besides that there are Men who are born to command, others to obey; It seemes that Servitude having been from the Beginning of the World, and presently after the Deluge, when Noah cursing Canaan his younger Son, pronounc'd him *Servant of the Servants of his Brethren*: And being as ancient, yea ancientser then the foundation of States and Empires; and having been approv'd by ancient Law-givers and wise Politicians, and by God himself, it cannot be esteemed but reasonable and natural. For in the First Place, What is so just and so suitable to the Law of Nature, [The First, containing onely Marriages, Procreation, and Education of Children] as to give life to him whom you may justly deprive thereof, to feed him and cloath him; And in exchange for so many benefits to make use of him and of all that he can earn, and to make him return to his duty by some moderate punishments in case he recede from it? Which is the advice of *Aristotle* in his *Oeconomicks*, where he saith, That a good Father of a Family ought to give Three Things to his Servants, *viz.*



*Work, Food, and Discipline.* I conceive it also less unsuitable to Nature, yea to Christianity, to *make use* of Criminals then to put them to death; If *Example*, for which principally they are punish'd, will permit: And also instead of sending so many stout men to the Gallows for common crimes, or putting them to the Sword (as they do in War) to put them to the *chain* for the service of the publick, either for labouring in Buildings, Cloysters, and Fortifications of Cities, repairing of wayes, cleansing of Streets, Towing of Boats, drawing of Charriots, labouring in High-wayes, Mines, and other publick works, after the Gallies are furnish'd them. Possibly too, it would not be unmeet that he who is so indebted that he cannot satisfie his Creditors, should instead of suffering himself to lie rotting in Gaol, pay with the Service of his Body what he cannot in Money: But it would be fit to use a difference therein. And as for those that are born of Slaves, is there any thing *more* ours then such fruits grown within our walls and sprung from our own stock?

The Last opposed, that it is difficult for an Absolute Dominion to keep any measure. Witness *Quintus Flaminius*, a Roman Senator, who kill'd his Slave to content the curiosity which a Bardash of his had to see what aspect a Man hath when he is dying. Besides, if there be any place where *Liberty* ought to carry the Cause, (were not Christian Brother-hood alone sufficient,) it is *France*, of which the priviledge is such, that the Slaves of any part of the world, onely setting their foot therein, obtain their freedom immediately.

The Inventions propounded were the Experiment of *Vitruvius's* Æolipila, that of walking under the Water; and the Subjects of the next Conference; The First, *Water*; the Second, *Wine*, and *Whether it be necessary in War*.

## CONFERENCE VIII.

I. *Of Water.* II. *Of Wine, and whether it be necessary for Souldiers.*

I.  
*Of Water.*

THE Discourse upon the First Point began with the division of the *qualities* of Water into *First* and *Second*; alledging that the *First*, viz. *Cold* and *Moist*, are so manifest that it is difficult to deny them: *Cold*, because Water being heated returns presently to its natural coldness; *Moist*, because it moistneth more then any other Element, and is not contained within its own bounds. But its *Second*, and the proprieties resulting from them, are so numerous, that they justly administer ground to the doubt which is raised; Whence proceedeth the cause of so many Varieties in Colour, Taste, Odour, and the other Objects of



of the Senses. Possibly one may assign the cause of the Waters *Whiteness* to the Mines of *Plaster*; Of its *Blackness* to those of *Iron* or *Stones* of the same colour; The *Red*, to those of *Cinnabar*; The *Green*, to those of *Copper*; The *Blew*, to those of *Silver*; The *Yellow*, to those of *Orpiment*; The *Hot*, to *Sulphur*; The *Acid*, to *Vitriol*; The *Stinking*, to *Bitumen*. But that some parts of the Sea and Rivers abound with Fish, and that with certain kinds, and others not; That the Water of some Springs is converted into Stone, and all that is cast thereinto; Others, (as they say) make Women fruitful or barren; Some, as it is reported of the Fortunate Islands, cause weeping; Others, dying with laughter: That some pass through others without mixing therewith; That others are so ponderous, that no *Body* whatsoever can sink to the bottome; Some, on the contrary, are so light, that nothing can swim upon them; and infinite other such proprieties: 'Tis that which seemes to surpass ordinary Ratiocination. Of this kind is that which is said of a certain River in *Sicily*, the Water whereof cannot be brought to mingle with Wine, unless it be drawn by a chaste and continent Woman. To which was added, for a conclusion, that if the Water of *Seine* had this property, we should be many times in danger of drinking our Wine unmixt.

The Second said, That nothing could be more natural and methodical then to treat of Water after Air. For as in the Composition of a Mixt Body, the moisture which is predominant in the Air unites and knits the matters which are to be mixed; So the Cold which predominates in the Water closes them and gives them consistence. And as in Drawing and Painting, the Embroiderer and Painter passeth not from one light colour to another without some intermediate one, but he loseth the same insensibly in another more dulkish; out of which the bright breaketh forth again by little and little to the middle of his ground: So Nature doth not pass *immediately* from the *extreme* humidity which is in the Air, to the *extreme* coldness which is in the Water; but causeth that the moisture of the former abateth its great vigour at the approach of the moisture which is in the Water in a weak and remis degree, before it meet with the Cold of the Water whereunto it is to be joyned; Without which humidity of the Water in a weak and remis degree, the Cold could not compact the parts which the moisture united. So that this humidity is found in two Subjects, one subtile, which is the Air, the other more gross, which is the Water. As it happens also in the Fire, which is partly in a *rare* Subject, namely the fat and unctuous vapour, whereby it flameth, and (partly) in another solid and gross, which is Wood, Iron, or Coal. As Flame, it is more apt to shine and burn, penetrating the pores of the wood to find its Aliment there, which is the interior Oyle; As Coal it acts more powerfully, and is more durable. So if there were in the Mixt Body no other humidity but that of the Air, the  
same



same inconvenience would befall it that doth a Conquerour, who having subdu'd a Country reserveth no place of Retreat for the keeping thereof; For at the first opposition which he meeteth he is constrain'd to let go his hold: So if moisture were not in the Air, it would indeed penetrate the Compounded Bodies still, as it doth as readily; but it would suddenly dislodge again, if it had not its refuge in the Water which is more proper to preserve it.

The Third said, That Water cannot be cold in the highest degree. First, because if it were so, it could generate nothing; Cold being an Enemy to all Generation, because it locketh up the particles *within*; As, on the contrary, Heat is the Proximate Cause thereof, by the extension and attraction which it causeth *outwards*. Nevertheless, we see Plants and Animals in the Waters. Secondly, If it were so cold, being moist too, it would be alwayes frozen; since according to *Aristotle*, Ice is nothing but an excess of coldness with moisture. Thirdly, Those qualities which are attributed to Water are common to many other things besides; As to the Air, when it is cold: and do not necessarily belong to it, but may be separated from it; since, remaining Water still, it may become hot by the Fire, and frozen by the Air, and so be found destitute of its fluidity and humidity. If it be said, That it loseth not its qualities but by accident, and that of its own Nature it is cold; I answer, That the Natural and Necessary Proprieties of Things, proceeding immediately from their Essence, (such as those of Water are held to be) cannot be taken from them but by Miracle: And on the contrary, That it is not cold but by the vicinity of the cold Air which encompasseth it, and not of its own Nature; Whence the surface of the Water is cold in Winter, and sometimes frozen, the bottome remaining warm. And therefore the Fish do not come much to the upper part of the Water in Winter, but stay below, where it is in its own Nature, and is not so easily alter'd with forrein qualities. Moreover, since we know the Qualities of a Thing by its Effects, the Effect of Water being, even in the Judgement of Sense, to moisten more than any of the Elements, it ought to be held the *Chief or First Humid* Body. If it be said that it moistneth more than the Air, because it is more gross and compact (as hot Iron burneth more than flame;) I answer, That although it may owe that humidity to the thickness of its Matter, yet the same is not the less essential to it, since Matter is one part of the Element; And besides, it proceedeth from the Form too, since it can never be separated from it; Water alwayes necessarily moistning whilst it is Water. Which cannot be said of its coldness: for when it is warm it doth not lose its name of Water, though it be no longer cold; but it is alwayes moist.

The Fourth said, That, to speak properly Water, is never hot in it self; but 'tis the Fire insinuating and mingling itself with  
with



with the little Particles of the Water that we feel hot; and accordingly that Fire being evaporated, the Water not onely returneth to its natural quality, but also the Fire leaving its pores more open renders them more accessible to the Air, which freezes the same in Winter sooner then it would do otherwise. And this is no more then as Salt and Sulphureous Waters are made such by the Salt and Sulphur mingled therewith; Which being separated from them, they lose also the taste thereof. And as Wine mingled with Water is still truly Wine, and hath the same Virtue as before, though its activity be repress'd by the power of the Water; So Water mingled with Salt, Sulphur, and Fire, is true Water, and hath intrinsically the same qualities as before that mixture; though indeed its action be retarded, and its qualities be checked and rebated by the other contraries which are more powerful. In like manner, Water is not cold of itself, but by the absence of Fire; As it happens in Winter, that the igneous beams of the Sun not staying upon the Water, it persisteth cold, and so that coldness is but a privation of heat; As appears in the shivering of an Ague, which proceedeth from the retiring of the natural heat inwards, and deserting the external parts. But if there happen a total privation of those igneous parts, which are infus'd into it mediately or immediately by the Sun, then it becometh frozen: And because those fiery Particles occupied some space in its Body, it is now straitned, and takes less room then before. Whence Water freezing in Vessels well stopp'd, the same break for the avoidance of Vacuum. Moreover, Humidity is not one of its essential proprieties, because it may be separated from it, as we see in frozen water, which is less humid then when it was cold. It followes then, that Second Qualities being Tokens of the First, and the *goodness* of Water requiring that it have the least *weight* that can be, as also that it have neither *Taste* nor *Smell*; the most pure, (*i. e.* the Elementary, of which we are speaking) is without First Qualities; having been created by God onely to be the *band* or *tye* of the other parts of a mixt body.

The Fifth said, That the Scripture divideth the Waters into those which are above the Heavens, and those upon the Earth; as if to teach us that Water is the Centre, the Middle, and the end of the Universe. Which agrees with the opinion of those who establish it for the *Sole Principle* of all things. Those Supercœlestial Waters are prov'd by the Etymology of the word for Heavens, *Schamaim*, which signifies in *Hebream*, *There are Waters*: Because 'tis said that God divided the Waters from the Waters, and placed them above the Firmament: Which Supercœlestial Waters are also invited by the Psalmist to bless the Lord: And lastly, because it is said that at the time of the Deluge the windows of Heaven were opened.

The Sixth said, That the gravity of those Supercœlestial Waters would not suffer them to remain long out of the place destined



nated to that Element, which is below the Air; And therefore it were better to take the word *Heaven* in those places for the *Air*, as 'tis elsewhere in the Scripture, which mentioneth the *Dew*, and the *Birds of Heaven*: Since also the Hebrew word, which there signifies *Firmament*, is also taken for the Expansion of the Air, and those Supercœlestial Waters for Rain.

II.  
Of Wine,  
and whether  
it be necessa-  
ry for Soul-  
diers.

Upon the Second Point it was said, That if we speak of Wine moderately taken, the Sacred Text voids the Question, saying, that it *rejoyceth the Heart*. Which it performeth by supplying ample matter to the *Influent Spirits*, which the Heart by the Arteries transmitteth to all the parts; and which joyning themselves to the private Spirits, strengthen them, and labour in common with them; And so the Souldier, entring into fight with a cheerful Heart, is half victorious. Yea, the greatest exploits of War are atchieved by the Spirits; which constitute Courage, the Blood heated by them over-powring the coldness of Melancholy and Phlegme, which cause backwardness and slowness of Action. For it is with the Virtues as with Medicines, which become not active, and pass not from *power* into *act*, but by help of the natural faculties; So the Virtues do not produce their effects but by the Spirits. But Wine taken in excess is wholly prejudicial to the Valour of a Souldier; who hath need of a *double strength*; One of *Mind*, to lead him on valiantly to dangers, and keep him undaunted at dreadful occurrences; The other of *Body*, to undergo the long toiles of War, and not draw back in fight. Now Wine destroyes both of these. For as for the former, Valour or Fortitude is a Moral Virtue, which, as all other Virtues its companions, acteth under the conduct of Prudence, which alone ruleth and employeth them, and knoweth where and how they ought to act; So that what assists Prudence assists Valour too; and that which hurteth the one hurteth the other also. Now excessive Wine hurteth the former very much. For by its immoderate heat it causeth a tumult and disorder in the humours, it maketh the Brain boyle and work, and consequently embroyleth and confoundeth the *Phantasmes* which are imprinted in it, (as it happeneth in sleep or in the Phrensie) and by its gross vapour it obstructeth all its passages. So that the Understanding cannot take its *Survey* there, having no free access to come and form its judgements and conclusions upon the Ideas and Phantasmes; And although it should have its Avenues free, yet the Phantasmes being in confusion, like Images in stirred waters, it would be impossible for it to judge aright, and prudently to discern what fear or what eagerness ought to be check'd and repel'd. For all Fear is not to be rejected, no more then 'tis to be follow'd; nor is the bridle to be let loose at all adventures, nor alwayes restrain'd. The strength of the Body is also impaired by Wine. For though *Galen* and others will have it Hot and Dry, yet it being so but *potentially*, 'tis as subject to deceive



deceive us, as that Dutchman was, who hearing that *Cresses* were hot, commanded his Man to fill his Boots therewith, to warm him. For the truth is, Wine is moist and vapourous, and that to such a degree, that by reason of its extreme humidity it cannot be corrupted with a total corruption; For this happeneth when the external heat hath wholly drawn out the moisture of the corrupted Body, and so dissolved the Union of all the dry parts which moisture keeps together; So that the Elements flying away, there remains nothing to be seen but Earth alone. Which cannot come to pass in Wine, by reason of the little dry substance in it, and of its great humidity, which cannot be wholly separated: In which regard it is never corrupted but in part, *viz.* when the external heat draws away the more pure substance, and the better Spirits; as we see when it grows sour, thick, or turbid. Being then humid to such a degree, and our parts partaking of the nature of their food, if Souldiers nourish their Bodies excessively with Wine, they must retain the qualities thereof, *viz.* softness and weakness which follow humidity. Whence possibly came the word *Dissolute*, for such as addict themselves to this debauchery, and the other which follow it. Therefore the Souldier would be more robust if he never drank Wine; because he would eat the more, and produce the more solid substance, which would make him more vigorous, less subject to diseases, and more fit to indure in fight, and undergo the other toils of War.

The Second said, That it belongs to the prudent States-man to weigh the benefit and the mischief which may arise from his orders; So that he alwayes propose to himself that he hath to do with imperfect men, and who incline rather to the abuse, then the right use of things. This holds principally in War, Souldiers willingly aiming at nothing else but pleasure and profit: Even in this Age, wherein we are past the Apprentisage of War, except some constant Regiments: Souldiers are tumultuously chosen almost alwayes out of the dregs of the people; of whom to require the exercise of Temperance in the use of that which ordinarily costs them nothing, were to seek an impossibility. Such is Wine; that though it makes the Souldier *sturdy*, yet it makes him unfit to govern himself, much less others; Whereunto notwithstanding he oftentimes becomes oblig'd by the various contingencies of War, when the Leaders miscarrying, or being elsewhere employ'd, the Souldier must supply the place of Captain to his Companions and himself. This hath mov'd almost all the Oriental Nations, and particularly the *Turks* to abstain from Wine, though they also adjoyn reasons for it drawn from their false Religion, to confirm their Minds more in conformity to this piece of Policy. Therefore *Mahomet*, to induce them to it by their own experience, invited the principal Persons of his Army to a Feast, where he caus'd them to be served with the most exquisite Wines. First they all agreed upon the Excellency of



Wine; but having taken too much of it, there arose such a tumult amongst them, that he took occasion thence, the next morning, to represent to them that Wine was nothing else but the Blood of the first Serpent, whose colour it also beareth; as the stock of the Vine which produceth it retaineth the crooked form of that vile Animal, and the rage whereinto it putteth those that use it, doth testifie. And to content them that still lov'd the taste of it, he promis'd them that they should drink nothing else in their Paradise, where their Bodies would be proof against its violence. Which Prohibition hath been the most apparent cause of the amplification of his Empire, and propagation of his Sect; not onely because Wine was by its acrimony dangerous to the most part of his Subjects of *Africa* and *Arabia*, where such as are addicted to it are subject to the Leprosie; and that his people who cultivated Vines might employ themselves more profitably in tilling the Earth, but principally it hath been more easie for him and his successors to keep 200000 men of War in the field without the use of Wine, then for another Prince as potent as he to keep 50000 with the use of Wine; which besides is difficult to transport, and incumbeth the place of Ammunition which is absolutely necessary.

The Third said, That *Mahomet* was not the first that prohibited Wine; for before him *Zaleucus* forbade the *Locrians* to drink it upon pain of Death. The *Lacedemonians* and the *Carthaginians*, as *Aristotle* reporteth, had an expresse Law by which they forbade the use of it to all people that belong'd to War. And the wise man counselleth onely the afflicted to drink it, to the end to forget their miseries. But for all this he conceiv'd that it ought not to be prohibited now to our Souldiers, since it augmenteth Courage, en vigorateth strength, and taketh away the fear of danger; though indeed it is fit to forbid them the excess thereof, if it be possible.

In Conclusion, It was maintain'd that Wine ought to be forbidden not onely to Souldiers, but to all such as are of hot and dry tempers, and use violent exercises; because it hurts them, as much as it profits weak persons. Wherefore Saint *Paul* counselleth *Timothy* to use it for the weakness of his stomach. But God inhibited it to the *Nazarens*, and to those which enter'd into his Tabernacle, under pain of death. Moreover, you see that *Noah*, who us'd it first, abus'd it. And anciently it was to be had onely in the shops of Apothecaries; because 'tis an Antidote and most excellent Cordial, provided its continual use render not its virtue ineffectual; our Bodies receiving no considerable impression from accustomed things. Therefore *Augustus* gave ear to all the other complaints which the Romans made to him; but when they mention'd the dearness of Wine, he derided them; telling them that his Son in Law *Agrippa* having brought Aquæducts to the City, had taken care that they should not dye of Thirst.

At



At the Hour of Inventions, amongst many others, these two were propos'd. The first to prepare common Water so that it shall dissolve Gold without the addition of any other Body, &c. The second, to make a Waggon capable to transport by the help of one Man who shall be in it, the burdens of ordinary Waggon in the accustomed time: of which the Inventers deliver'd their Memories, and offer'd to make the experiments at their own charges.

These Subjects were propounded to be treated of at the next Conference. First, *The Earth*. Secondly, *What it is that makes a Man wise*.

## CONFERENCE IX.

### I. *Of the Earth*. II. *What it is that makes a Man wise*.

UPON the first Point it was said, That the Earth is a simple Body, cold and dry, the Basis of Nature. For since there is a Hot and a Moist, it is requisite for the intire perfection of Mixts, that there be a Cold and a Dry to bound them, and give them shape. This Earth then upon which we tread is not Elementary; for it is almost every where moist, and being opened affordeth water: which was necessary to it, not onely for the union of its parts, which without moisture would be nothing but Dust; but also in regard of its gravity, which I conceive cometh from humidity; because as the lightest things are the hottest and driest, so the heaviest are usually the coldest and moistest. Besides, gravity proceeding from compactedness and compactedness from moisture, it seemeth that moisture is the cause of gravity. Which is prov'd again by the dissolution of mixt Bodies, whereby we may judge of their composition. For the heaviest Bodies which are easily dissolvable, are those from which most Water is drawn; whence it is that there is more drawn from one pound of *Ebeny*, then from twenty of *Cork*. From this gravity of the Earth its roundness necessarily follows. For since 'tis the nature of heavy things to tend all to one Centre, and approach thereto as much as they can, it follows that they must make a Body round and spherical, whereof all the parts are equally distant from the Centre. For if they made any other Figure, for Example, a Pyramide or a Cube, there would be some parts not in their natural place, *i. e.* the nearest their Centre that might be. Moreover, in the beginning the Earth was perfectly spherical, and the Waters encompassed it on all sides, as themselves were again encompassed by the Air. But afterwards, these Waters, to make place for Man, retiring into the hollows and concavities made for that purpose in the Earth, it could not be but that those parts of the Earth which came out of those cavi-

I.  
*Of the Earth.*



ties must make those tumours which are the Mountains and Hills for the convenience of Man. And nevertheless it ceaseth not to be *Physically* round, although it be not so *Mathematically*; As a bowle of *Pumice* is round as to the whole, though the parts are uneven and rough. They prove this roundness, 1. By the shadow of the Earth; which appearing round in the Eclipses of the Moon, argueth that the Body whence it proceedeth is also round. 2. Because they who travel both by Sea and by Land sooner discern the tops of Mountains and the spires of Steeples then the bottome; which would be seen at the same time if the Earth were flat. 3. Because, according as we approach, or go farther from the Poles, we see the same more or less elevated. 4. Because the Sun is seen daily to rise and set sooner in one place then in another. Lastly, it is prov'd by the conveniency of habitation. For as of all Isoperimeter Figures the Circle is most capacious, so the Sphere containeth more then any other Body; and therefore if the Earth were not round, every part of it would not have its Antipodes. So that I wonder at the opinion of *Lactantius* and Saint *Augustine*, who denyed them: For as for that story, that in the year 745. by the relation of *Aventinus*, *Virgilius* a German Bishop was deprived of his Bishoprick, and condemned as an Heretick by Pope *Zachary*, it was not onely for maintaining this truth, which experience hath since confirm'd, but because he drew conclusions from it prejudicial to Religion. Now whereas it may be doubted, whether as there are uneven parts in the Earth some higher then other, so there be not also Seas, some of whose waters too, are more elevated then the rest; I affirm, that since all the Seas (except the *Caspian*) have communication amongst themselves, they are all level, and no higher one then another. And had they no such communication, yet the Water being of its Nature fluid and heavy, flowing into the lowest place, would equal its surface with the rest, and so make a perfect Sphere. Whence it follows that they were mistaken who dissuaded *Sesostris* King of *Ægypt* from joyning the *Red Sea* with the *Mediterranean*, for fear lest the former, which they judg'd the higher, should come to drown *Greece* and part of *Asia*. For want of which demonstration several Learned Men have been mistaken, and no less then the Angelical Doctor.

The Second said, That the Earth is very dry, not for that it dispelleth moisture as Fire doth, but for that it receiveth and imbibeth it into it self. But it cannot be cold of its own Nature; if it were it could produce nothing. It is cold onely by the Air, as 'tis sometimes moist by the Water, and hot by the Fire which insinuateth into its cavities. It is also very heavy, since it holdeth the lowest place in the world, and hath its motion from the circumference to the Centre; which is the progression that *Aristotle* attributeth to heavy Bodies. Whence for being the lowest stage, it is called the *Foot-stool of God*. But this heaviness seemeth to me not to proceed from humidity, as was urged. For though the



the Water and Earth joyn'd together seem to weigh more then Earth alone; 'tis not that they weigh more indeed, but this Earth which was imagined to be alone is fill'd with a quantity of Air; and the Water coming to succeed in its place, it appeareth more heavy. For Earth and Water joyn'd together weigh more then Earth and Air so joyn'd in like quantity; because Water is heavier then Air. And to justifie that Earth is heavier then Water, a bucket fill'd with sand, weighes more then an other fill'd with Water. For, that sand is Water congealed is as hard to prove, as that Earth is Water.

The Third said, That Earth composeth a Mixt Body by a double action, *viz.* from its coldness, and of its driness. As for the former, it secondeth the Water, compacting by its coldness the parts which are to be mix'd, and which moisture hath united. For the Second, it giveth hardness and consistence, imbibing and sucking up the superfluous moisture after the due union of the parts made thereby. It cannot but be cold; for as good Politicians willingly reconcile two great Families at Enmity by their mutual alliances so all the strength of the mixture consisting onely in the union of Dry and Moist, and its destruction coming from their disunion, and the Dry and Moist being wholly Enemies and contraries in the highest degree, Nature reconciles them together, and brings them into union by the mediation of Water. For this being ally'd to Air by the moisture which it hath in a remiss degree; and Earth being ally'd to Water by the coldness which it hath in a less degree, it becometh ally'd to the Air and its humidity: Since according to the maxime, Things which agree in the same third agree among themselves. Thus you see coldness is necessary to the Earth, to cause a lasting composition amongst them. Earth hath also this advantage by its siccity, that as the same is less active then heat, and yieldeth thereunto in vigour of action, so heat yieldeth to it in resistance. For the dryness inducing hardness resisteth division more powerfully, and consequently better preserveth the mixt Body in *being*, resisting the Agents which are contrary to it. Whereto its gravity serveth not a little, it rendring the Earth less managable by the agitations of the agents its Enemies; So that gravity by this means assisteth the hardness and consistence of the dryness; like two Kinsmen uniting together to keep off the affronts of their Enemies.

The Fourth said, That the gravity of the Earth, and of every other Body, yea that of Gold too, the heaviest of all mixt Bodies, dependeth onely upon its Figure; since not onely a Vessel convex on the side toward the Water sinketh not, but also a single leaf of Gold swimeth upon it. Which is seen likewise in *Tera Lemnia*, or *Sigillata*, which sinketh not in the Water; so that there is no probability in that decuple proportion of the Elements; according to which, Earth ought to weigh ten times more then Water, and Water onely ten times more then Air; and supposing  
noe



one were in the *Region of Fire*, and there weigh'd the Air, as we do here the Water, he would find it likewise ten times heavier then the Fire. This is more certain, that the proportion of the weight of Earth to that of Sea-water, is as 93. to 90; that of Sea-water to fresh, as 92. to 74. But that which makes more for those who hold Water more heavy then Earth, is, that the proportion of Earth to Salt is found to be as 92. to 106.

In fine, It was remark'd that though the Earth is consider'd by Astronomers but as a point in respect of the vast extent of the Cœlestial Orbs; yet no Man encompass'd it round before the year 1420. when *Jean de Betancourt*, a Norman Gentleman, by the discovery of the *Canaries* trac'd out the way to the Spaniards, who attributed the honour thereof to themselves; though they began not till above fourscore years after. Moreover, it is 15000. leagues in circumference, of which there is not much less Land uncover'd then there is cover'd by the Water. But if you compare their greatness together, there is far less Earth then Water. For 'tis held that there is no Sea that hath a league in depth, there is little without bottom, many to which the Anchors reach, yea several places not capable of great vessels for want of Water. On the other side, There are Mountains upon which you still ascend upwards for many dayes journey; others inaccessible even to the sight: In a word, where ever there is Sea there is Land, but not on the contrary: So that taking the sixt part of the compass of the Terrestrial Globe for its Semidiameter, according to the ordinary proportion of the circle to its ray, the Earth will be found several times greater then the Water; the Springs that are found in opening it, being not considerable in comparison of the rest of its bulk.

II.  
What it is  
that makes a  
Man wise.

He that spake first upon the second point, said, that he wonder'd not that Wisdom was taken for a Subject to be treated of in so good company, since 'tis the point which all desire most, not onely in themselves, but also in others with whom they are to converse. But it behoveth to distinguish the same according to its several acceptions. For anciently *Wisdom* was taken for the knowledge of things Divine and Humane, before *Pythagoras* call'd it Philosophy. At present it is confounded with *Prudence*, and is either *infused* or *acquired*. The former, which springeth from the knowledge and fear of God joyn'd with a good life, is obtain'd by begging it of God, and rendring one's self worthy to receive it: Such was that of *Solomon*, which brought to him all other goods. The latter, of which we now speak, is obtain'd by Precepts, Experience, or both. Whereunto Travel is conceiv'd greatly to conduce, according to the testimony of *Homer*, who calls his wife *Ulysses* a Visitor of Cities; and according to the opinion of the ancient French Gentry, who would not have had a good opinion of their Children, unless they had seen *Italy* and other forreign Countries. It is also divided according to

Sex,



Sex, Conditions, and Age. For there is difference in the Wisdom of a Woman, of a Child, of a Man grown, and of an Old Man; and so there is in that of a Father of a Family, of his Domestick, of a Captain, of a Souldier, of a Magistrate, of a Citizen, of a Master, of a Varlet, and of infinite others, who may become wise by several, yea, sometimes by contrary means. For Example, a wise Souldier ought to expose himself to all dangers and events of War; quite the contrary to a wise Captain, who ought to preserve himself the most he can. A Prince, a Magistrate, a Master, a Father, are wise, if they command as is fitting: Whereas a Subject, a Burgeiss, a Servant, and a Child, are esteemed such in obeying them. Besides Precepts and Experience, Example serves much to the acquiring of Wisdom; whether the same be drawn from the reading of Books, or from converse and conference with wise persons; or sometimes too from the sight of undecent things: As of old the *Lacedemonians* taught their Children Sobriety, by shewing their *Helots* drunk. The Example of Animals is not useless thereunto; and therefore *Solomon* sends the sluggard to the Pismire; and *Lycurgus* taught the same *Lacedemonians*, that Education alone made the difference between Men, by shewing them two Dogs of the same litter run, one after a Hare, the other to his Meat. Fables likewise have many times their use. But true it is, that Nature layeth the great Foundations: Whence Cold and Dry Tempers, such as the *Melancholly*, have a natural restraint which participateth much of Wisdom; Whereas the Sanguine, by reason of their jollity, and the Cholerick, in regard of their hastiness, have greater difficulty to attain the same; as *Socrates* confessed of himself.

The Second said, That the true *Moral Wisdom* of a Man, consider'd alone, consisteth in taming his Passions, and subjecting them to the Command of Reason; which alone serveth for a Rule and Square to all the Actions of Life; whereas the common sort leave themselves to be govern'd by the Laws: And the ancient Philosophy had no other aim but that Apathy. That of a Master of a Family consisteth in the management of the same: That of a Polititian in the Administration of the State, punishing the evil-doers, and recompencing the good, establishing wholesome Laws, and maintaining Trade.

The Third said, That He alone deserves to wear the name of *Wise*, who seeketh and embraceth the means whereby to be in favour with him who is the *Chief Wisdom*. Those means are two. First, That his Understanding be duely inform'd of what he ought to know, and what he ought to be ignorant of. Secondly, That his Will be dispos'd to what he ought, either to love or hate. As for the first, he must be ignorant of Humane Sciences, since they shake and undermine the foundations of true Wisdom; their Principles being for the most part opposite to the Articles of our Faith. For of the ancient Philosophers, the

*Pythagorians*



*Pythagoreans* are full of Magical superstitions. The *Platonists* hold a *Matter* coeternal to God. *Democritus* and all the *Epicureans* have thought the same of their Atomes, not to mention their *Voluptuous* End. The *Stoicks* have made their Sage equal, and sometimes superiour to God, whom they subjected to their celebrated *Destiny* or *Fate*. The *Pyrrhonians* have doubted of every thing, and consequently of the truth of Religion. The *Cynicks* publickly made Virtue of Vice. The *Peripateticks* are as much to be fear'd as the former, with their *Eternity of the World*, which destroyeth all Religion, and gave occasion to Saint *Ambrose*, to say in his Offices, That the *Lycaum* was much more dangerous then the gardens of *Epicurus*. Moreover, the Principles of the Sciences do not accord with those of Faith: And Saint *Thomas* said with good right, that Humane Reason greatly diminisheth it. And that happens oft times to those who busie themselves about those goodly principles which the Poets relate fabulously of *Bellerophon*, who attempting to fly up to Heaven, *Jupiter* angry at him, sent onely a Fly, which overturned the winged Horse-man; So those vain-glorious wits puff'd up with some Humane Knowledge, venturing to hoise themselves into Heaven, and penetrate into the secret Cabinets of the Divine Providence; it gives them up to a thousand dubious Controversies, which precipitate them into the darkness of Confusion and Errour. Moreover *Soldmon*, the pattern of Wisdom, saith, that after having lead his Mind through all Nature, he perceiv'd that all was nothing but *vanity and vexation of spirit*; And Saint *Paul* saith, that Knowledge puffeth up and swelleth with Pride; that this Humane Wisdom is nought but Folly before God; by which he admonisheth us to beware of being deceived; and that if any one will be wise, let him profess Ignorance, and become a fool, since the Folly and Ignorance of the world is the true Wisdom and Knowledge in the sight of God, who loveth the poor of spirit, that is, the simple, ideots, and ignorant. As for what our Understanding ought to know, for becoming wise, 'tis, To know that *Chief Wisdom*, and the Christian Doctrine, by the example of the same Saint *Paul*, who would not know any thing besides *Jesus* and him crucifi'd. For the Second means, which regardeth the Will of Man, it will be disposed to that which is to be lov'd or hated, when it hath submitted it self entirely to the Will of God, who is its *Supreme Good*; who saith to it, Eschew Evil, and Follow Good.

The Fourth said, That by the word *Wisdom*, is generally understood all that which contributes to perfectionate a Man according to the rational part; as by the word *Faith* we understand Christianity, and a Summary of all the Christian Virtues. Now, it is hard to prescribe a way to such Wisdom, seeing it requireth two points, namely, The *Knowledge of Things*, and *Moral Habits*, both which are infinite. For all which is *Sensible* is the Object of our Senses. and enters not by one, but by all; That which is

*Intelligible,*



*Intelligible*, is the Object of our Understanding. Moreover, all the Good in the world is under the notion of *Convenience* (or *suitableness*) which gives it Amability, the Object of our *Sensitive appetite*, which is guided in this acquitst by the knowledge of the Senses; If it is *Spiritual*, it is the Object of the *Will* which pursues it by the light of the Understanding. And for the eschewing of Errour in the search of those Goods Prudence intervenes, which hath at its service an infinite of habits of the Mind; yea the whole troop of Moral Virtues, in the exercise of which there is always something to be got, as there is always to be learnt in the knowledge of things. Therefore every Man being fully furnish'd with what is needful to be wise, he is not excusable if he become not so. For he hath the seeds of Wisdom in as many manners as there are wayes to obtain it. In the Understanding he hath, from the Cradle, *Intelligence*, which is the *Habit of first Principles*, and *Maximes*, which he knoweth by the *Induction* of the Senses; by the help of which he attaineth Science. In the Will he hath the *Synteresis* or Conscience, which is an *Habitual Cognition of the Principles of Moral Actions*, by which he easily proceedeth to the exercise of Virtues, and to the acquisition of them. And further, these pure Natural Principles may be assisted and reliev'd by good Instructions; and especially, if they who learn have Organs well dispos'd, and a temper proper for becoming wise.

At the Hour of Inventions, one undertook the proof of *Archimedes's* Proposition, To move the Earth from its Centre, if he had assign'd elsewhere a solid space, and instruments proportion'd thereto in greatness and strength. And it was prov'd, that the Centre of Magnitude is different from that of gravity, by many Mechanical Experiments.

After which it was resolv'd to treat, at the next Conference. First, *Of the Motion, or rest of the Earth*. Secondly, *Of two monstrous Brethren living in one Body, to be seen at present in this City*.

## CONFERENCE X.

- I. *Of the Motion, or Rest of the Earth.* II. *Of Two Monstrous Brethren, living in the same Body, which are to be seen in this City.*

HE that spake first to this Point, Said this Question had been in debate for more then two thousand years; and the reasons brought on either side seem'd to him so strong, that he knew not which to embrace. That the most common opinion was that of *Aristotle*, *Ptolomy*, *Tycho Brahe*, and the greatest part of

I.  
Of the Motion, or Rest of the Earth;



Philosophers, namely ; That the Earth is unmoveable, and plac'd in the midst of the World. Which Scituation is prov'd, I. Because the Decorum and Symmetry of the Universe requires that every thing be plac'd according to its dignity. But the Earth being the ignoblest and meanest of the Elements, all which yield in point of dignity to the Heavens, it ought consequently to be in the lowest place, which is the Centre of the World. II. The Gravity of the Earth inferreth both the one and the other ; namely, its being in the Centre, and its Immobility ; The former, because the heaviest things tend toward the lowest place ; and the latter, because by reason of their gravity they are less apt for *motion* then for *rest*, whereunto the lowest place also contributeth. For in a Circle the Centre remains unmoveable, whilst the other parts thereof are mov'd. III. In whatsoever place of the Earth we are, we can alwayes discover one *half* of the Heaven, and the opposite signes of the Zodiack ; as also experience witnesseth, that when the Moon is at the Full, we behold her rise just at the same time that the Sun sets. Whence it followeth that the Earth is at the Centre, and as it were a *point* in comparison to the Firmament. IV. We alwayes see the Stars of the same magnitude, both when they are directly over our heads, and on the edge of the Horizon, unless there be some hindrance by the refraction of Vapours and Clouds. All which things would not be thus, unless the Earth were in the midst of the World. Now they have concluded the *Rest* and *Immobility* of the Earth from the following Reasons. I. It is the nature of *Simple* Bodies to have but *one Sole* and *Simple* Motion. For if two contrary Motions were in the same Subject, the one would hinder the other. Wherefore the Earth having, by reason of its gravity, a *Direct* perpendicular Motion of its own, cannot have also a *Circular* : and by reason of the same gravity it must needs be firm and stable, not moveable. II. If the Earth were mov'd, then a stone or other heavy thing cast upwards, would never fall down at the foot of the caster, but at distance from him ; for during the short interval of its being in the Air, the Earth will have made a great progress ; as it happens when one in a boat that passeth swiftly upon the Water, casteth any thing upwards, the same falleth a far off, instead of falling into the boat. III. If the Earth turn'd round, then a Bullet discharg'd out of a Cannon from the West towards the East, would not fly so far from the piece, as one discharg'd from the East towards the West ; because the Earth will in the mean time by its Motion have carried the Cannon forwards to the former Bullet, and remov'd it backwards from the latter. IV. We should never see the Clouds unmov'd, nor going towards the East ; but as for them that move Westward, they would seem to fly as swift as lightning. V. Cities and all kind of buidings would be shatter'd, the Surface of the Earth would be disunited, and all its parts dissipated ; being not so firmly link'd



link'd together, as to endure such a Motion. Lastly, did the Earth turn round, and the Air with it (as is alledg'd in answer to the former reasons) the Air would have been so heated since its Motion with that swiftness, that the Earth would have been uninhabitable, and all Animals suffocated; Besides that the violence of that Motion could not have been supported by Men so long time; for it is acknowledg'd that Dæmons themselves cannot carry a Man from one Climate to another remote one, within that short time that some Magicians have phanci'd; because he would not be able to resist the violence of the agitation of the Air.

The Second confirm'd this Opinion, alledging, That such Motion would be *violent* in respect of the Earth; which for that it *naturally* tendeth downwards cannot be hois'd towards Heaven, but against its own Nature; and no violent thing is durable. He added also the testimony of the Scripture, which saith, *God hath establish'd the Earth that it shall not be moved; that it is firm or stable for ever; that the Sun riseth and setteth, passing by the South toward the North*: And lastly, it relateth the *standing still of the Sun at Joshua's word*, as one of the greatest Miracles.

On the other side, it was affirm'd, That the Opinion of *Copernicus* is the more probable, which *Orpheus, Thales, Aristarchus, and Philolaus* held of old, and hath been follow'd by *Kepler, Longomontanus, Origanus*, and divers others of our times, *viz.* That the Earth is mov'd about the Sun, who remaineth unmoveable in the Centre of the World. Their Reasons are, I. The middle, being the most noble place, is therefore due to the most noble Body of the World, which is the Sun. II. It is not more necessary, that the Heart be seated in the midst of Man, then that the Sun be plac'd in the midst of the Universe, quickning and heating the greater, as that doth the lesser World. Nor do we place the Candle in a corner, but in the midst of the Room. III. The circular Motion of the Planets round about the Sun seemes to argue that the Earth doth the same. IV. It is more reasonable that the Earth which hath need of Light, Heat, and Influence, go to seek the same, then that the Sun go to seek that which he needeth not; Just as the Fire doth not turn before the Roast-meat, but the Roast-meat before the Fire. V. *Rest* and *Immobility* is a nobler condition then Motion, and ought to belong to the visible Image of the Deity, *viz.* the Sun, who in that regard hath been adored by sundry Nations. VI. We see heavy things kept up in the Air onely by viture of Motion; For instance, a stone plac'd in a sling, and turn'd round about. VII. They who deny the Motion of the Earth, by the same means deny its *æquilibrium*, which is absurd to do. For if a grain of Wheat laid upon a Sphere exactly pendulous upon its Poles causeth the same to move, the like ought to come to pass in the Terrestrial Globe when any heavy Body is trans-



transported upon it from one place to another: Seeing the greater a circle is, the less force is needful to move it; and there is no impediment from the Air, much less from its Centre, which is but a point. The same comes to pass when a Bullet is shot out of a Cannon against a Wall. VIII. If both the Direct and the Circular Motion be found in the Load-stone, which tendeth by its gravity to the Centre, and mov'd circularly by its magnetick virtue, the same cannot be conceiv'd impossible in the Earth. IX. By this Simple Motion a multitude of imaginary *Orbs* in the Heavens, without which their Motion cannot be understood, is wholly sav'd; and Nature alwayes acts by the most compendious way. X. It is much more likely that the Earth moves about five leagues in a minute, then that the eight Sphere in the same time moves above forty Millions, yea infinitely more, if it be true that the extent of the Heavens is infinite, and that beyond them there is neither time nor place: So that to have all the Heavens move round in four and twenty Hours, were to measure an infinite thing by a finite.

II.  
Of two Mon-  
strous Bre-  
thren living  
in the same  
Body.

He who spoke first to the Second Point, said, That in his judgement the Anger of God is the true cause of Monsters, since the Scripture threatens to cause the Wives of those whom God intends to punish, to bring forth Monsters. The same is the universal concept of the vulgar, who are terrifi'd at the sight of such prodigies, which are termed Monsters; not so much because the people shews them with the finger, as for that they demonstrate the Divine Anger; whereof they are always taken for infallible arguments. Upon which account the Pagans were wont to make expiation for them with sacrifices. And most Writers begin or end their Histories with such presages.

The Second said, That as it is impious not to ascribe the Natural Actions on Earth to Heaven, so it seem'd to him superstitious to attribute the same to the Supreme Author, without seeking out the means whereby he produceth them: For though they may be very extraordinary in regard of their seldomness, yet they have their true causes as well as ordinary events. Which doth not diminish the Omnipotence of the Divine Majesty, but, on the contrary, renders it more visible and palpable to our Senses: As the Ministers, Ambassadors, and military people employ'd by a great King for the putting of his command in execution, are no disparagement to his Grandeur. That he conceiv'd the cause of such Monsters was the quantity of the Geniture, being too much for the making of one Child, and too little for the finishing of two, which the Formative Virtue designed to produce; as also the incapacity of the Womb, which could not receive its usual extension, and that by reason of some fall or blow hapned when the parts of the Embryo's began to be distinguish'd, and separated one from the other; whence an Abor-

tion



tion would have follow'd, had not there been a great vigour in the two fetus, which was sufficient to retain their internal formes, namely, their Souls; but could not repair the defects of the external formes, at least in that wherein the matter hath been most deficient: As the Founder, how excellent an Artist soever he be, makes an imperfect Image, when his material is defective.

The Third said, That for the passing of a certain Judgement upon the present subject, he conceiv'd fitting to make this description of it. The greater of this two-fold body is called *Lazarus*, and the other *John Baptista*, Son of *John Baptista Coloreto*, and *Perigrine* his Wife, of the Parish of Saint *Bartholomew*, on the Coast of the Seigniorie of *Genua*. They were born in the year, 1617. between the eleventh and twelfth of *March*, about mid-night; and baptiz'd by *Julio Codonio*, Curé of the place by direction of the Abbot *Tasty*, Vicar general of the Archbishop of *Genua*; and three moneths after confirm'd by Pope *Paul V.* Their Mother dy'd three years after their birth. The first is of low stature, considering his age of more then sixteen years; of temper very melancholly and lean: Both the one and the other have brown chestnut hair. They are united together by the belly four fingers above the Navel, the skin of the one being continu'd to the other; and yet their feeling and motion are so distinct, that the one being prick'd, the other feeleth nothing. The first (saving this conjunction) is well proportion'd, and furnish'd with all his Members: The other who came into the world with a head much less then his Brother, hath one at the present twice as big; which greatness seemes to proceed from an Oedema or Inflation, occasion'd by the posture of his head, which is alwayes pendulous and supine; and this defluxion of humours, joyn'd with his Brother's negligence, hath caus'd some sores upon him. He hath the countenance of a Man, but a most dreadful, one by the disproportion of all its parts; He is deaf, blind, dumb, having great teeth in his mouth, by which he casts forth spittle, and breathes very strongly, rather then by the nose, which is close stop'd within. His mouth is otherwise useles, having never drunk nor eaten; nor hath he any place for evacuation of excrements. His eyes are alwayes shut, and there appears no pupil in them. He hath but one thigh, one leg, and one foot, extremely ill shap'd, and not reaching to the knee of the other. But he hath two armes, very lean and disproportionate to the rest of the body; and at the end of each of them, instead of hands, a thumb and two fingers, very deformed too. At the bottome of his belly there is a little membranous appendix without a passage. His pulse is manifest in either arm, as also the beating of his heart, though the external figure of his breast, and the divarication of his jugular veines have very little of the ordinary structure and situation. Whereby it appears that each of them hath a brain, heart, and lungs distinct; but they have  
both



both but one liver, one stomach, and one set of Intestines. For one of them sleeps sometimes while the other is awake; one hath been sick while the other hath been in health. The greater hath been blooded above twenty times in three grievous diseases; but no Physitian hath ventur'd to purge him, lest the purgative medicament passing through those unusual windings should produce unusual effects to his prejudice. He lives after the common manner, exercising all his rational, vital, and natural faculties in perfection. And they who have been to see him in this City, (as almost every one runs to see this Wonder of Nature) may judge of his management and conduct of his affairs. Yet the negligence of the greater in supporting the less, and holding him in a convenient posture, is not to be pass'd over without notice; for though he breathes, as I said above, yet he alwayes keeps his head cover'd with a double linnen cloth, and his cloak; and although by his great weight he continually stretches the skin of his belly, yet he endeavours not to ease either his Brother or himself. Yea, the custome of carrying this load hath render'd it so light to him, that he performes all ordinary exercises, and playes at Tennis, like another Man. All which consider'd, it seemes this Monster is one of the most notable Errours of Nature that hath appear'd in this Age, and perhaps in any preceding. Besides the causes alledg'd above, some extraordinary conjunction of the Stars happening at the time of his conception, may have had some influence in this irregular production. Moreover, it appears that the less draweth nourishment from the greater by the Anastomosis, (or Insertion) of his *Vessels* with those of his Brother, as the Child sucks the Maternal Blood by the *Umbilical Vein*; there being in both but one principle of sanguification. But it is otherwise as to Life, Motion, and Feeling, which being distinct in them, cannot proceed from one and the same principle.

The Fourth said, That it may be doubted whether this be a Monster or no, their union being not sufficient for that denomination. For we frequently see two trees grow together in the middle; and otherwise separate. Nor is the deficiency of parts in the one any more monstrous, then if one single man should be born without Armes and Legs. Moreover he inherited the same from his Father, which doth not come to pass in Monsters.

The Fifth said, That according to *Plato*, the case is the same with Nature as with Virtue: All that exceeds their ordinary rules is called monstrous. As deformity of the Mind is Vice, so is also that of Nature; That the cause of this instance is like that of an Egg with a double yelk, out of which, the pellicles being broken that separated them, are produc'd two Chickens joyn'd together, or else one with four wings, four feet, or other such irregularities. So these Twins having been divided in the Womb at the place where they co-here, either by the acrimony



mony of humours or some other violent cause, Nature which loves nothing so much as Union, forthwith assembled its spirits and humours to unite that which was separated. Which design of Nature is apparent in the cure of wounds and burnes, the fingers and other parts uniting together one to the other, contrary to its first intention, the figure, and use of the same parts. But the difficulty is, whether there be two Souls in these two Bodies. For my part, considering that they have two Brains, (wherein the Soul is held to reside) and the external humane shape, they may be rightly call'd two Men, who consequently have two Souls. Now if that which is in the less doth not exercise its functions, the reason is, because the Organs are not fitly dispos'd and proportion'd, no more then those of little Children, Ideots, and Mad men, and through this Nature's having been hinder'd by the rebellion of the Matter to receive such dispositions from the Agents, which are *Heat* and the Spirits: which also being too languishing, have not been able to impart to their subject all the degrees of necessary perfection.

The Sixth said, That he compar'd the framing of this Monster to the Workmanship of a piece of Tapistry, upon which two persons are imploy'd. The more diligent of the two finishes his task first; the more slothful finding all the material spent, is constrain'd to leave his business imperfect, and fasten it to the other as well as he can. So the spirits being in too great abundance to attend the fabricating of one single Child, undertook two, and began each from the Head: The more vigorous had done first, and the other finding no more stuff made but half a Man, who by reason of the continuity of the Matter, became connected to the first. Now whereas it may be said that the Definition of Monsters brought by the Civilians doth not appertain to it, the answer is, That the same thing may be a Monster *Physically*, inasmuch as it deflecteth from the Laws of Nature, as this doth, though it be not one *Politically*, in that it is capable to make a Will, Inherit, Contract, and to do all other Actions civil.

The Hour of Inventions was spent in Replies and Comparisons of other Monsters, particularly that of mention'd by *Buchanan* in the fifteenth Book of his History, born in *Northumberland* with two heads, four armes, two breasts, and onely two leggs; It was instructed in Musick, so that each head sung its part melodiously, and discours'd together pertinently. They dy'd, one fifteen dayes before the other, the latter by the putrefaction of his inseparable Companion. At length these two points were chosen. First, *Of the Hairy Girl seen in this City*. Secondly, *Whether it be more difficult to resist Pleasure then Pain*.



## CONFERENCE XI.

I. *Of the little Hairy Girl lately seen in this City.*

II. *Whether it is more easie to resist  
Pleasure then Pain.*

I.  
*Of the Hairy  
Girl.*

THE First said, That this *German* Girl, born at *Ausberg*, called *Barbara Ursine*, (the Name and Sir-name very well futing to the person, if they were not invented purposely) is no Monster. For a Monster is defin'd, a Natural Effect, degenerating from the right and usual frame or perfection essential to its species. But the same holdeth not in this person, who is onely an *extraordinary* effect of Nature, whereof two causes may be assign'd. First, the prevalence of internal heat, which more powerfully drives outwards the steames (or exhalations) that serve for the *matter* of Hair, and is also the cause that Children are sometimes born with Teeth. Whence it comes to pass, that Hair grows in more places, and more plentifully in those which are hot and dry. In like manner it hath been observ'd, that some notable Warriours and Pirates have had their Hearts hairy. The Second Cause is the strong Imagination of the Mother during her conceiving, or in the dayes near it; when the Embryo being like soft wax, is capable of every impression never so little proportionate to its subject; yea, sometimes it is so extravagant, that the effect cannot be attributed to any other cause. Such was that young Girl mention'd by *Marcus Damascenus*, and presented to the Emperour *Charles IV.* which, besides that she was all hairy like this, had the feet of a Camel; her Mother having too wistly consider'd the Image of Saint *John Baptist* clothed in Camel's hair: And this consideration satisfi'd the Father, who at first disown'd her. The same was the Opinion of *Hippocrates*, when he sav'd the Honour and Life of a Princess who had brought forth an *Æthiopian*, through the too attentive minding of the picture of a *Moor* hanging at her beds-feet. Which mov'd *Galen* to advise such Ladies as would have fair Children, to behold those that are such frequently, at least in picture.

The Second said, That this Hair being an Effect against the *Intention* as well of *Universal Nature*, which could not design any profit from a bearded Woman, as of the *particular Agents*, which designed to produce an Individual like to one of themselves, according to the ordinary course; it follows that the Girl must be termed a Monster. The Cause whereof cannot be the indisposition of the *Matter*, nor its too great quantity or deficiency; since all the parts of this Child being well proportioned, and her colour native, conclude and argue the same as to the humours of her Body. Yet it may well proceed from  
some



some exorbitance in *quality*, not caus'd by the *formative virtue*, but by the Imagination of the Mother. For that of the Father contributes nothing hereunto. That the Formative Virtue doth not the business, is prov'd, because the Hair is a fuliginous vapour arising from the more dry and earthy parts of the residue and excrement of the third Concoction, which is made in the parts, and the *Expulsive* Faculty casteth forth as uselefs and unsuitable; the same arriving at the skin is imprison'd thereby the Cuticle; And Nature, which hath no further need of it, hinders its return. Now this Matter is forc'd to abide thus, till it make it self way through the Pores fram'd by its heat rarifying the skin. During its stay there it is concocted, incrassated, hardened, and puts on the figure of the Pore through which it issueth; As the soft *Matter* of Glass is incrassated by the heat, and takes the form of the mould in which it is formed. Hence it is, that they whose skin is tender have very soft Hair. For their skin being by reason of its great rarity unable to resist the least heat, easily opens its Pores, which thereby become very small to give the vapour passage; which vapour because it stay'd not long enough to be concocted and hardned, produceth very soft, gentle, and loose Hair. On the other, side in those whose skin is hard and dry, the resistance of the same causeth the inclosed heat to act more vehemently, and consequently to make greater Pores; through the which those vapours passing after a longer inclosure produce a Hair thicker, dryer, and harder, as having been more parched and adur'd. For the vapour is by this means thickned and hardned, like the smoak which is condens'd into soot in the Chimney. Now the *Formative Virtue* cannot be the cause of this production of Hair in all parts of the Body of this person. First, because heat, the cause efficient, is at that time too weak, through defect of which we see that a dozen or fifteen years after the birth, Hair is not produc'd even in Males. Secondly, the Matter of this little Body is too soft to furnish stuff dry enough for the making of that fuliginous vapour. It remaineth therefore that it be ascrib'd to the *Imagination* of the Mother; who being a Superior Agent, many times hinders the *Formative Virtue* from doing what it designeth. That she is Superior, it is true. For the *Formative Virtue* belongeth to the *Vegetative* Life; Man begetting onely as he is Vegetative (God alone begetteth by the *Understanding*) but the *Imagination* is a Faculty of the *Sensitive* Life; and so subjecteth the less to it self; as the Agent which operateth by the Understanding makes use of that which operateth by Nature. So the Smith, though a mean Artisan, yet makes use of Fire, the most noble Elementary Agent, as a Slave. Now the *Imagination* acteth in this manner: It presents to the Woman some pleasing object, this object excites her *Appetite*; the *Appetite* by its dominion and command moves the *Motive* Faculty the performer of its pleasure. This *Motive* Faculty discharging its Office by the Spirits, which it sets in Motion, and



sends forth as it lists; And these Spirits having their Source and Original in the Brain, upon which the Phantasmes of the Imagination are imprinted, it comes to pass that when a Child-bearing Woman hath a lively representation or Imagination of the thing which she desires; those Spirits upon which the Image is imprinted, coming to be sent forth by the *Motive Faculty*, and separating from the rest of their troop which is in the Brain, carry along with them the said Image or Effigies. The same hapning in the Brain that doth in a Looking-glass, which being intire sheweth but one Object, but broken into a hundred pieces, every piece representeth the same whole. For the Nature of *Species* is of it self indivisible, and is not divided but because of the subject in which they are. So the Phantasme being in the Brain representeth but one and the same thing, but a part of the Spirits (upon which it is engraven) separating from thence carry the same along with them; And arriving with the blood and humours at the fætus, which incessantly draws them from the Mothers Body by the Umbilical Veins, engrave upon it the Image configur'd to them.

The Third said, That he could not ascribe this Effect to the *Imagination*, no more then all other Monsters (because the Girl resembling neither Father nor Mother, seem'd to him by this uncouth and strange hairiness, to deserve the name of a Monster.) For:

First, The Imagination cannot produce any *real Effect*, the Intentions of Men produce nothing such; this belongs onely to the Deity.

Secondly, All the Animal Faculties being almost intercepted in Generation, how can the *Formative Faculty*, which, according to *Erastus*, is the sole Agent, conceive and apprehend those Images and Representations? For there is little appearance that the formes of the *Imagination* are engraven upon *Aerial Spirits* in the same manner, that these of the *Formative Faculty* of the Heavens, or *Universal Spirit*, are imprinted in the *Air*, for the production of *Mixt Bodies*. For if it were so, then Children would have upon their Bodies marks or tokens of every thing that their Mothers had ardently desir'd and imagin'd, (and in their Imagination and desires they have no commendation for Constancy) by reason of the continual *Agitation* of their blood, which is incessantly attracted by the *Fætus*. So that we should see strange portraits of the Mothers Phancies upon the Infants Body; whereby would be sav'd much of the pains that *Baptista Porta*, takes in his *Natural Magick*, to teach how to produce Monsters. Moreover, as the *Common Sense* judgeth of the difference of Objects which it carrieth to the *Imagination*; so the *Imagination* retaineth not those *Species*, saving to present them to *Reason*, which judgeth and determineth upon them. Wherefore, if, for example, the *Common Sense* represents to the *Imagination* a Centaur, or some other Monster, and the

Imagi-



*Imagination* represent the same to *Reason*, this *Reason* of ours will never allow or consent that the Formative Faculty attempt to bring it to effect.

The Fourth said, That he did not think this Girl ought to be termed a *Monster*, unless in the large signification of the word, as it comprehends every thing that is contrary to the intention of the agent, or is extraordinary. Thus *Aristotle* calls a *Woman* a *Monster*, and a fault of Nature, which always designs the making of a Male as the more perfect; which being unable to do, either in regard of the disposition of the Agent, or of the Matter, she makes a Woman. And for the same reason he calls a Child, which doth not resemble its Father, a *Monster*, because the Father design'd to beget a Man like himself. But this person is not *truly* such, since she is faulty onely in the excess of superfluities or excrements, not of any part that varies the species: As one that voideth more excrements than others, or hath greater Nails than usual, cannot be stil'd a *Monster*. Besides, what we account monstrous in this person, we have the same our selves. For were our *Sight* acute enough, we might see that there is no part of the Body but is cover'd with Hair, and perhaps not so fair and soft as hers; in which we find nothing extraordinary but in the length. For whereas she hath a light-colour'd beard of four or five fingers length, the cause thereof is, because the Hair is carefully shav'd off the rest of her countenance, which otherwise would be all of the same length. This Hair proceedeth from extreme *Moisture*, and Moderate *Coldness*; the former supplyeth the matter for its Generation, and the latter helpeth the Action of Heat, by the occlusion of the Pores which it causeth. So that if among Children, which (according to *Hippocrates*) are more humid than those who have attain'd to Adolescence, there be found any who have such a degree of Coldness as is able to support the root of the Hair by condensing the skin, it will grow in all parts of the Body, though unequally, according to the difference of humour.

The Fifth said, That besides the *Imagination* already alledg'd, (which caus'd *Perfina* Queen of *Ethiopia* to bring forth a white Daughter, and a Woman in our time to bring forth a Child like a Frog, by having held a Frog in her hand for some disease) this Hair proceeds from a certain temper proper for producing the same; which temper is found in this little person, as it is in other persons in some places onely, and at a certain Age. This temper seemes to be cold; for we see that Men and other Creatures are most hairy in the coldest Countries, and cold hath a great influence upon Hair; some persons having in one night had their Hair extremely grown and chang'd through an excess of fear, and consequently of cold; for fear causeth all the heat of the external parts to retire inwards. As it hapned to a Gentleman of twenty eight years old, who being condemned to death for an Adultery committed in the Palace of *Charles V.*



the next morning was found all *white* in the Prison; whereupon the Emperour granted him his pardon: As the Grandfather of the same Emperour did formerly upon the same account to a Spaniard nam'd *Otorio*. The like hapned to an other in shorter time, who found the rope begin to break by which he was let down by the side of a steep rock to get an airy of Hawks. Now this great abundance of Hair cannot proceed from extreme *Humidity*; for then it must either be *radical*, and consequently mild, and no fit *Matter* for Hair; or else *adventitious*, sharp, and corroding, which would destroy their root. Besides, it is not credible that so little a Body as this can afford so much excrementitious matter. Nor can it proceed from excess of *Heat*; for we see heat makes Hair to shed in those that have a *burning* Fever or a *Hectick*, and the Hair and Nails grow in dead bodies which have no natural heat.

II.  
Whether it  
be harder to  
resist Pleasure  
then Pain.

Upon the Second Point, it was said, That if Pleasure be consider'd as a Good, and Pain as an Evil, it is not to be doubted but that the latter is as insupportable to our Nature, as the former is agreeable to it. But there are two sorts of Good and Evil, of Pain and Pleasure: One of the *Mind*, and another of the *Body*; and many times the pains and sufferings of the Body are the joyes of the Mind; and the pleasures and the gratifications of the flesh, the crosses and torments of the Spirit. Now there are scarce any pure and unmixt pleasures or pains in the world, but they are usually mingled one with the other: And if they could be separated, Pain would turn the scale, as being the more heavy and difficult to be supported. In reference to which mixture, the Greek Poet judiciously feigned, that there are two vessels at the entrance of Heaven, one full of Honey and sweetness, the other of Gall and bitterness. Of which two Liquors mingled together *Jupiter* makes all men to drink, and tempers with them every thing that he pours down here below. So that the Pains and Pleasures of the Mind or the Body, being moderate and indifferently temper'd with each of those Liquors may be supported by Men; Pleasure and Good, (as the more natural) much more easily then Evil and Pain, which are destructive to Nature. But when both of them are extreme, and the sweetness of Pleasures and contentments is not abated by some little gall, nor the bitterness of displeasures sweetned by some little Honey, then Men cannot relish this Potion; because they are not accusom'd to things pure and sincere, but to confusion and mixture; and cannot bear the excess of Grief or Joy, the extremities of which are found to be fatal. As first, for Grief, *Licinius* finding himself condemn'd for the crime of Cheating the publick, dy'd with regret; *Q. Fabius*, because he was cited before the Tribunes of the People for violating the Law of Nations: *Julia*, *Cesar's* Daughter, at the sight of the bloody garments of her Husband *Pompey*; And in the last Age, one of the Sons of

Gilbert



*Gilbert Duke of Montpensier*, going into *Italy*, dy'd with resentment at *Puzzole*, upon the Sepulchre of his Father; whom he went thither to see. Then for Joy, *Diagoras Rhodius*, seeing his three Sons victorious in one day at the *Olympick Games*, dy'd with Joy. The same Fate befell *Chilo the Lacedemonian*, upon the same victory of one of his Sons. *Dionysius* the Tyrant of *Sicily*, and the Poet *Sophocles*, having heard that they had won the bayes for Tragedies, dy'd both immediately; And so did the Poet *Philippides* upon winning that for Comedies. The Painter *Zeuxis* having made the portraiture of an old woman very odly, dy'd with laughing at it. To which *Paulus Jovius* produces two like examples of later date; one of *Sinas*, General of the Turk's Gallies; upon the recovery of his onely Son whom he accounted lost, and the other of *Leo X.* upon the taking of *Milain*, which he had passionately desir'd; both of which dy'd for Joy. Thus each of these Passions have great resemblance in their excesses. They equally transport a Man beyond the bounds of Reason; The one by its pleasingness makes him forget himself, the other by its bitterness leads him to despair. Grief destroyes Life, either by the violent agitation of the Spirits, or by their condensation, which stopping the passages hinders respiration; From whence follows suffocation and death. Pleasure and Joy produce the same effect by contrary causes, namely by too great a dilatation of the Spirits, which causes weakness, and that weakness death. It may be doubted under which rank they ought to be plac'd who dye for Love: But the sweetness of this kind of death is too much extoll'd by the Poets, that being to choose (said he) I should prefer it before the others.

The Second said, They who dye for Joy are of a soft temper and rare contexture, and their Hearts being too easily dilated and expanded by it, the Spirits evaporating leave the same destitute of strength; and so the *Ventricles* close together, and they perish under this Passion. On the contrary, they who dye with grief and sadness have the Pores more closed, but are of a very hot temper, which requires room and freedom for the dilatation of the Heart, which becoming compress'd by sadness, (which, like Fear, stops and refrigerates, and renders the Spirits too much throng'd and condens'd among themselves) the Spirits having their avenues obstructed, and their commerce with the Air hindered, stifle the Heart. That nevertheless the Passions of Joy are much less than those of Grief, because Evil more vehemently moves the *Appetite* than Good. For Grief destroyes the simple and absolute Existence of a thing. Pleasure brings onely a transient and casual effect, and is but a redundancy or surplusage. An Animal hath its perfect essence without it, but Grief puts its Being into evident danger, and changes it essentially. II. The preservation of an Animal, for which Nature endu'd it with the Passion of Grief, is the highest internal end; whereunto  
also



also Pleasure is ordain'd as a means ; the pleasure of the *Taste* for the preservation of the Individual ; that of the *Touch*, for the preservation of the species. In fine, Delectation is a Female Passion, or rather but half a Passion ; for when its Object is present, it is languid and asswag'd, and hath no more but a bare union with the Object, that is, the present Good, which is rather a *Rest* than a *Motion* of the *Sensitive Appetite* : Whereas Grief, which respects a present Evil, is not onely redoubled by the presence of the same, but summons all the other Passions to its Relief, Anger, Audacity, Courage, and all the Faculties to revenge it self.

The Third said, That if we consider these two Passions, as streams running within their ordinary channels, and do not respect their inundations, then Grief seemes to be more powerful then Joy ; for it causeth us to break through all difficulties that might stop us, it rallies the Forces of Nature (when there needs any extraordinary performance) gives Armes to extremities, and renders Necessity the Mistress of Fortune. On the contrary, Pleasure and Joy abate the greatness of the Courage, enfeeble a Man by exhausting his Spirits, and emptying his Heart too much thereof.

The Fourth said, Pleasure and Grief are two Passions of the *Concupiscible Appetite*, the former of which is the *perception* of an agreeable Object, the latter of a displeasing one. For all Sensation is made by a Mutation, and that either from Good to Evil, (whence ariseth Grief, and if it persisteth, Sadness;) or from Evil to Good, whence springeth Pleasure, which if it be lasting, causeth Joy : which are to be carefully distinguish'd. They easily succeed, set off, and give conspicuousness one to the other. *Socrates* would never have found pleasure in scratching the place where his fetters fastned his Legs, if he had not borne those shackles a long time in Prison. Their vehemence hath commonly reference to the *Temper*. Pleasure hath more dominion over the *Sanguine*. The *Melancholy* Man makes more reflexion upon Grief. But considering them absolutely, it seemes to me more difficult to support Ease then Disease, Joy then Sadness, Pleasure then Grief. First, because Hope, the harbinger of good and contentment, hath greater effects then Fear which fore-runs Evil, and causeth to undertake greater things ; for all glorious and Heroical Actions have Hope for their impulsive cause ; whereras, commonly, Fear produceth none but servile Actions. Secondly, a Passion is term'd strong or violent, when by the impression of the species of the Object first upon the Senses, and then upon the Phancy, it becometh so much Mistress of Reason that it hinders the Man from freely exercising the functions of knowing aright and doing aright. Now Pleasures and Contentments cause Men not to know themselves, but to forget God, and run into Vices ; whereas Grief and Afflictions usually retain them within their duty, in the Fear of God, and in the exercise of the  
Virtues



Virtues of Patience, Obedience, and Humility. Many persons have bravely and courageously resisted torments, and yet yielded to Pleasure. And that Emperour of whom Saint *Hierome* speaks in his Epistles, desiring at any rate to make a young Christian sin, that he might afterwards avert him from the true Religion; and finding that he had to no purpose employ'd torments and other cruelties upon him, at length shook him by the allurements of two immodest Women; whose embraces he being unable longer to resist or fly from, because he was bound with soft fetters, he had recourse to grief, biting his Tongue in two with his Teeth, which were alone at liberty, to moderate the excess of pleasure by that pain. In fine, as Enemies hid under the mask of Friends are more to be fear'd than open Enemies; So Grief, though a manifest Enemy to our Nature, yet is not so much to be dreaded as Pleasure, which under a false mask and pretext of kindness, insinuates its sweet poyson into us; And (as of old the *Psylli* poyson'd Men by commending them) becomes Mistress of the Man, and blindes his Reason. Wherefore *Aristotle* considering the power of Pleasure, counsels him that would resist it, not to behold its fore-part as it presents it self to us, but the hinder-part when it parts from us, and for all recompence leaves us nought but a sad repentance.

At the Hour of Inventions many wayes were spoken of conducing to the production or hindrance of Hair, as also to the changing of its colour; and some of the chief stupifiers were mention'd that serve to assuage Grief or Pain. After which these two Points were chosen for that day seven-night. First, Of three Suns appearing at the same time. Secondly, Whether it be possible to love without interest, and without making reflection upon one's self.

## CONFERENCE XII.

### I. Of Three Suns. II. Whether an Affection can be without Interest.

HE that spake first, said, That the occasion of this Discourse of three Suns, was the report that in *August* last, upon the day of our Ladies Assumption, there appeared three in a Village within two Leagues of *Verneuil* in *Normandy*. But lest any should attribute the cause thereof to what *Virgil* saith made two Suns, and two Cities of *Thebes* appear to *Pentheus*; we read in the first book of the fifth Decade of *Titus Livius's* History, that there appear'd three Suns of *Rome*, during the War against *Perseus* King of *Macedonia*, and the night following many burning torches, (*Faces Ardentes*, a kind of Meteor) fell down in the Territory

I.  
Of three  
Suns.



territory of *Rome*, which was then afflicted with a raging Pestilence. The same hapned again when *Cassius* and *Brutus* were overthrown, when the Civil Wars were between *Augustus* and *Antonius*; and under the Emperor *Claudius*. But the most remarkable were those two which appear'd under the Empire of *Vitellius*; one in the East, and the other in the West. I come now to inquire into the Causes. For if it be true that Man alone was created with a Countenance erected towards Heaven, on purpose to contemplate its Wonders; I conceive there are none more admirable then Meteors, so nam'd by reason of the elevated aspect of Men when they admire them: and amongst those Meteors there is none more excellent then that Triple Sun, if the Copies resemble their Original, the most admirable of all the Cœlestial Bodies. Nevertheless, Reason given Man by God to render the most strange things familiar to him, finds more facility in the knowledge of these, then of many other things which are at our feet; and that by Induction, which it draws from Examples. The Sun, as every other Body, fills the Air with its Images or Species, which pass quite through the same, unless they be reflected by some Body smooth and resplendent in its surface, but opaque at the bottome; Such are Looking-glasses, and Water, whether it be upon the Earth or in the Clouds. Now when a smooth Cloud that is ready to fall down in rain, happens to be opposite against the Sun, (being terminated either by its own profundity, or some other opaque body) it represents the figure or image of the Sun; and if there happen to be another opposite to this first, it reflecteth the figure in the same manner; As a Looking-glass opposite to that wherein we look receives the species from the former, and represents the same; And if we believe *Seneca*, there is nothing less worthy of admiration: For if no body wonders to see the representation of the Sun here below in clear Water, or any other resplendent body, it ought to be no greater marvel that the same Sun imprints his image as well on high as below, not in one Cloud, or two onely, but also in many, as *Pliny* affirms that himself beheld. This multiplicity of Suns (which are call'd *Parhelij*) happens usually but either at the rising or at the setting of the Sun. First, because the *Refraction*, which is necessary for seeing them, is not so well made to our eyes, which is more remote when the Sun is in the Meridian. Secondly, because when the Sun is in the Meridian he is more hot, and allows not the Cloud time to stay, but dissolves it as soon as it becomes opposite to him; which he doth not at his rising or setting, being then more weak. The same Cause that shews us three Suns hath also represented three Moons under the Consulship of *Cn: Domitius*, and *C. Fannius*; as also three other which appear'd in the year 1314. after the death of *S. Lewis*, three moneths together. Which impression is called *Paraselene*, and cannot be made but at full Moon.

The Second said, That *Parhelij* do not onely appear upon the Clouds,



Clouds, or at Sun-rise and Sun-set, as the common opinion importeth; for in the year 1629. on the twentieth of *March*, the day of the Vernal Equinox, four *Parhelij* appear'd at *Rome*, about the true Sun, between Noon and one a clock, the Heaven being clear and the Sun encompass'd with a double Crown, of a deeper colour then those which are seen sometimes about the Moon, and are found in the circumference of a Rain-bow whose Circle is perfect. Two of those false Suns occupi'd the interfections of the Solary Crown and the *Iris*, and two others were opposite to the former in the same circumference of the *Iris*. Yet, in my judgement, this cause may be rendred of these five Suns. As in the Night, when the Air appears serene, we many times see that the Moon radiating upon the Air of the lower Region, which is more thick then the superior, by reason of vapours and exhalations, formes about it self a great bright Crown of about forty five degrees diametre; which space is fit for the reflecting and uniting of the Lunar rayes to the Eye, and by such reflection and union to cause the appearance of that Crown: So also when the lower Region is full of vapours and exhalations, which have not been dissipated by the Sun, either because of their great quantity or viscosity, or else of the coldness of the Air, they render the Air more dense, though serene in appearance, and so more proper to receive the like impressions of the Sun. In the same manner were the Crown and the *Iris* produc'd; for they were form'd by a reflection and refraction of the Solar rayes, and consequently at the interfection of the *Iris*, and the Crown, there was a double reflection and refraction. Whence at the the said interfection appear'd two false Suns sufficiently bright, by the new reflection of which upon the same circumference of the *Iris*, were formed two other Suns of less brightness.

You may see  
the figure of  
these Par-  
helij in Des  
Cartes Me-  
teors.

The Third said, That this plurality of Suns ought to be attributed to a reflection of the species of the true Sun receiv'd in some Stars so oppos'd to him that they send back his light and species, and the concurse of those reflected rayes, causes those masses of light to appear in the centres of concave bodies that reflect them; which cannot be Clouds, because they are neither smooth nor opaque, nor void of colour; the three accidents necessary for reflection. Moreover, the Clouds cannot receive his species upon their uppermost surface, for then they could not reflect it; nor upon their lowermost or interior surface; for this cannot receive it, unless it be reflected from the Water, and then we should not see those Suns in the Air, but in the Water: Nor lastly, upon one side, because then the Spectator must not be upon the Earth, but in a line perpendicular to the diametre of the side of the Cloud; according to the doctrine of the *Catoptricks*.

The Fourth said, That the Clouds being polite or smooth when they are turn'd into Water, and their profundity serving instead of opacity (as we see in deep Waters, which our sight is unable to penetrate) they remit the species presented to them;

L

And



And the same may happen in the Air when it is condens'd. Whence, as *Aristotle* reports, many have seen their own Images in the Air; and some affirm, that they have seen whole Cities so, particularly *Avignon*.

The Fifth said, That the Viscosity into which the aqueousness of those Clouds had degenerated when those four *Parhelij* appear'd at *Rome*, was the cause not onely of their appearance, but also of their subsistence at mid-day. To the which also, more concocted and condens'd, must those three Suns ascrib'd which were observ'd in *Spain*, Anno 753. for the space of three years; and the three others that appear'd over the City of *Theodosia*, on the twenty ninth of *October*, 1596. from Sun-rise to Sun-set.

The Sixth said, That all these difficulties inclin'd him to attribute *Parhelij* to one or more Clouds round and resplendent like the Sun. For what unlikelihood is there that an unctuous exhalation may be elevated in the Air in a round figure, which being inflam'd on all sides, equally may represent by its light that of the Sun; seeing Nature is much more ingenious then Art, which represents him at pleasure by artificial fires; and we behold even from the surface of the Earth, up to the Orbes of the Planets igneous bodies of all figures and colours; and those of very long continuance.

II.  
Whether  
any Love be  
without self  
interest.

Upon the Second Point, the First said, That 'tis not without a mystery that *Plato* in his *Convivium*, makes two *Cupids*; one the Son of *Venus* Cœlestial, the other the Son of the common or Terrestrial *Venus*; intimating thereby that there are two sorts of Love; one vile and abject, which is that of Concupiscence, whereby a Man loves that which is agreeable to him for his own interest, the other divine and perfect, wherewith we love a thing for it self: which kind is very rare. And therefore *Hesiod* makes it to be born of the Chaos and the Earth, to intimate that it is difficult to meet any that is pure and without any interest. The Ancients have also made two Loves; one of *Plenty*, *Abundance*, by which the Perfect loves the Imperfect, to communicate thereunto what it wanteth; the other of *Indigence*, which the Defective hath towards the Perfect, that it may be made perfect by it. The former is that of God towards his Creatures; the latter, that of Creatures towards God. And as for that which is found between Creatures, it is more or less excellent according as it partaketh of the one or the other. But to speak generally, it is more noble to be lov'd then to love, as it is more excellent to be sought to then to seek to another, to give then to receive.

The Second said, That there are two sorts of Love, the one of Friendship, the other of Desire. The former causeth us to love things, because they are worthy of it; the latter, because they are convenient for us. The first is not onely possible, but  
more



more natural then the second. For the Love of Friendship is direct, that of Concupiscence is onely by reflection. Now that which is direct is in the date of Nature before the reflected, the stroke is before the rebound, the voice before the Echo, and the Ray before the reverberation. For Reflection is a replication or re-doubling of a thing. That the Love of Desire is such, I manifest. It is with our Knowledge as with our Love. A Man knows himself less easily then he doth others, because he knows all things else by a direct action, and himself by reflection. He sees every thing directly, but he cannot see himself saving in a Looking-glass. And for that nothing enters into him but passeth through the Senses, it is requisite that that which is in him come forth to re-enter again by the Senses, and pass into the Mind. For all Knowledge is by Assimilation; as, that I may see, the pupil of my Eye must have the Image of the thing which I would see, and so become like to it. Now all resemblance is between things that are distinct. So that if the Mind of Man is to know any thing of it self, that thing must be abstracted and sever'd from him, that it may be made like to him, and consequently cannot enter into his Knowledge but by reflection, in which the species loseth of its virtue; as we see in the Echo, which is never so natural as the voice which it imitates, nor the Object in the Looking-glass as the first Object. The case is the same in Love: For by it we love things before we desire them. Which is evident both in respect to the Object, and also to the Act of Love. Its Object, Good, includeth two things; First, its Nature of Good, which is an Entity consider'd in it as conducing to the perfection of the thing wherein it is; And Secondly, its communicability, or relation to other things capable of receiving its diffusion. The former is the foundation and efficient *emanative* cause of the other, which is onely a *Propriety*, and consequently less natural; because posterior and subservient to the former. Moreover, Love taken as an act of the Will hath the same effect; according to which it is defin'd an adequateness, conformity and correspondence of our heart to the thing, and an approbation and complacency in the goodness which is in the Object; which our Mind judging good in this manner; First, Loves it in it self with a Love of Friendship, and then afterwards judging it amiable, applies it to it self and desires it. So that there is a two-fold convenience or agreableness in every thing that is lov'd, even with the Love of Concupiscence. First, the convenience of the Good with its proper subject: And Secondly, the convenience of the same Good with the thing or person whereunto it is desired. The first convenience excites the Love of Friendship: The second that of Concupiscence. Wherefore it is more natural to Love without Interest, then for it. Besides, Love follows Knowledge, and we know things simply and in themselves, sooner then such as are compounded and refer'd to another. Lastly, the Love of Friendship is the end of the mo-



tions of our Hearts which acquiesce and stop there. The Love of Concupiscence is for the means which are posterior in the intention of Nature, and as servants employ'd for the End.

The Third said, That Love being one of the most noble acts of the Will, or rather of the Soul, which is created after the Image of God, it hath some lineaments of that Divine Love. Now God loves all things for his own sake. In like manner we see all reasonable Creatures have an instinct and sympathy to such as are convenient to themselves, and an abhorrence or antipathy to their contraries. Moreover, the Nature of Good, which is the Object of Love, shews that Love always precisely regards him that loves; there being no Absolute Good, but all is with convenience or relation, without which it would not move us to affect it. For no Love can be assign'd, how perfect soever, in which the person that loves hath not some interest. *Q. Curtius* deliver'd *Rome* from an infection of the Pestilence, by plunging himself into a great Vorago in the Earth; but it was with a desire of glory, and to be talk'd of. A Father loves his Children, but it is that he may perpetuate himself in them. We love Virtue for the sweetness and delectation which it brings with it; yea, even Martyrs offer themselves courageously to death, that they may live eternally with him for whose sake they suffer. And if seeing two Men play at Tennis, both of them alike unknown unto me, I yet wish that one may win rather than the other; this proceeds from some convenience or agreeableness between us two, though the reason of it be not then manifest to me.

The Fourth said, That Disinterested Love, which is the true, intirely terminates in the thing lov'd purely and simply for the natural and supernatural goodness which is in it. But that which reflects upon the person who loves for his Honour, Profit, or Pleasure, is false and vicious. Now although since the depravation of our Nature by sin the former sort of Love be very difficult, yet is it not impossible. For since there is a Relative Love, there must also be an Absolute, which serves for a contrary to the other. It is much more hard to love an Enemy (a thing commanded by God) than to love another with a Disinterested Love. And though it be true that Pleasure is so essential to Love that it is inseparable from it, (whence one may infer that such Pleasure is an interest) yet provided he who loves doth it not with reflection to his Pleasure, or for the Pleasure which he takes in loving, his Love is pure and simple, and void of all interest. So, though he who loves, goes out of himself to be united to the thing lov'd, (which is the property of Love) and becomes a part of the whole which results from that union, and consequently interested for the preservation of the same: Nevertheless, provided he do not reflect upon himself, as he is a part of that whole, his love is always without interest.

The fifth said, That as Reflex Knowledge is more excellent and perfect than direct; So reflected Love, which is produc'd  
by



by knowledge of the merits and perfections of the thing lov'd; is more noble and judicious then that which is without any reflection and interest. Gods Love towards Men ought to serve them for a rule. Therefore *Plato* saith, that when God design'd to create the World, he transform'd himself into Love, which is so much interess'd, that he hath made all things for his own Glory.

The Sixth said, That true Love is (like Virtue) contented with it self; and he that loves any thing for his particular interest doth not properly love that thing, but himself, to whom he judgeth it sutable. In which respect Saint *Bernard* calls such kind of Love mercenary and illegitimate; because true and pure Love is contented simply with loving; and though it deserves reward, yet that is not its motive, but the sole consideration of the excellence and goodness of the thing lov'd. Nor is this true Love so rare as is imagin'd, there being examples of it found in all conditions of Men. *Cleomenes* King of *Lacedæmon* disguis'd himself on purpose to be slain, as accordingly he was; thereby to expiate to the Fate which was destinat'd to the loss either of the Chieftain or his Army. *Gracchus* dy'd that his Wife *Cornelia* might live. The Wife of *Pætus* slew her self for company, to sweeten death to her Husband. Histories are full of Fathers and Mothers that have prefer'd their own death before that of their Children.

At the Hour of Inventions, One offering to speak of Amulets, Philtres, and other means to procure Love, and mentioning the *Hippomanes*, or flesh which is found in the fore-head of a young Colt (whereof *Virgil* speaks) he was interrupted by this intimation; That the two most effectual means for causing Love were the graces of the Body and the Mind, and to love those by whom we would be lov'd. And these two points were propounded. First, *Whether Melancholy persons are the most ingenious.* Secondly, *Which is most necessary in a State, Reward or Punishment.*

### CONFERENCE XIII.

- I. *Whether Melancholy Persons are the most ingenious or prudent.* II. *Which is most necessary in a State, Reward or Punishment.*

THE First said, That (according to *Galen*,) Humane Actions (to speak naturally) depend on the complexion or composition of the Humours. Which Opinion hath so far prevail'd, that in common Speech, the words *Nature*, *Temper*, and *Humour*, signifie not onely the *Inclination*, but the *Aptitude* and *Disposition* of persons to any thing. So we say *Alexander* the Great was of an

I.  
*Whether Melancholy Men are the most ingenious.*



an Ambitious and Martial Nature, *Mark Anthony* of an Amorous Temper, *Cato* of a severe Humour. Of the Humours, Melancholy (whereof we are to speak) is divided into the *Natural*, wherewith the Spleen is nourish'd, and that which is *Preternatural*, called *Atra bilis*, or black choler. The one is like to a Lee or Sediment, the other to the same Lee burnt, and is caus'd by the adustion of all the Humours, whereof the worst is that which is made of choler. Again, it is either *innate*, or *acquir'd*, by abuse of the six things which we call *Non-natural*, as Imprisonment, solitary and gloomy places, immoderate watchings, Agitations and Motions of Body and Mind, especially Sadness and Fear, immoderate fasting, the use of base and black Wines, gross food, as Pulse, Coleworts, Beef, especially salted, and Animals that have black hair, such as are the Stag, the Hare, and all Water fowle. *Aristotle* conceiv'd that this Natural Melancholy was the fittest humour to make Men ingenious; as he treats at large in his Problemes, and shews that the greatest persons that have excell'd in Philosophy, Policy, Poetry, and other Arts, have partaken most of it; yea, of the atribilarious Humour, as *Hercules*, *Ajax*, and *Bellerophon*. And before him *Hippocrates*, in his Book *De Flatibus*, saith, That nothing contributes more to Prudence then the blood in a good consistence, as the Melancholy Humour is. *Galen* will have Dexterity to proceed from Choler, Integrity and Constancy from Melancholy. The first reasons are taken from the similitude which Melancholy hath with Wine. I. First, as Wine is stronger upon its Lees, and keeps longer; so is the blood upon Melancholy. II. The Spirit which is drawn from Wine mingled with its Lee, is far better then that which is drawn from Wine alone. So the Spirits which proceed from blood joyn'd with Melancholy, are much more vigorous thereby. III. As it easier to leap on high when one hath his foot upon firm ground, then in a fluid place; So Melancholy being more firm then the other Humours makes the Spirits bound the higher, and they are also better reflected; as the rayes of the Sun are better reflected by the Earth then by the Water. IV. Melancholy persons have a stronger *Imagination*, and so more proper for the Sciences; because Knowledge is acquir'd by the reception of Phantasmes into the Imagination. V. Old Men, who are prudent, are Melancholy. Whence came that saying, *The prudent Mind is in a dry Body*. And the blood of studious and contemplative persons becomes dry and Melancholy by study. Therefore *Plato* said, That the Mind begins to flourish when the Body is pass'd its flower. In fine, the Melancholy are very patient, and are not discourag'd by any obstacles which they meet with: And as they are very slow in taking resolutions, so when they are once taken, they perform them notwithstanding what ever difficulties they encounter therein.

The Second said, He could not conceive how this Humour  
which



which causeth the greatest diseases in the Spleen, and in the Veins, the *Hypochondriacal Dotage*, and the *Quartan Ague*; in any part the *Scirrhus* and the *Cancer*; and in the whole Body the *Leprosie* and other incurable diseases, should increase Wit and contribute to Prudence. For considering it even in its natural constitution, it renders those in whom it predominates, of a *leadens colour*, *pensive*, *solitary*, *slow in motion*, *sad and timorous*; and causes them to have a *small Pulse*, which is an argment of the weakness of their Spirits. On the contrary, the *Sanguine Humour*, opposite to it, hath none but commendable signes and effects; a *rosy colour*, a *cheerful aspect*; a *sociable humour*, an *active promptitude*; In brief, *all actions in perfection*. Whence it follows that the Humours of a well temper'd Man being more exquisite, the Spirits which proceed from purer blood must be also more more refin'd.

The Third Said, That to know whether the Melancholy Temper be most proper for Prudence, it behoveth to consider the nature both of Prudence and of Melancholy, and see how they agree together. *Prudence* is the *Habit of acting according to Reason*: Whereunto is requisite a clear Knowledge of the *End* of Man and of his actions, as also of the *Means* which conduce to that end, together with an integrity and firmness of Mind to guide a Man in the election and practice of those means. Wherefore it is not without good reason that Prudence is accounted the Queen and Rule of all Virtues, and that all of them are but species or kinds of Prudence: Whence he that hath all the Virtues, and hath not Prudence, cannot be said to have any Virtue. For indeed it is to *Action*, what *Sapience* or *Wisdom* is to *Contemplation*. *Melancholy not-natural*, which becometh such by adustion of the natural, of the Blood, *Choler*, and salt *Flegme*, is easily inflam'd, and being inflam'd renders Men furious; and so is very contrary to Prudence, which requires a great tranquillity and moderation of Mind, for right judging of the *End* of things, and of the *Means* to attain thereunto. *Choler* indeed makes good Wits capable of well judging of the *End* and the *Means*; yea, it gives *Courage* for the execution: But the bilious Spirits are usually fickle, and want constancy in resolutions, and patience in executions; which defects are very remote from Prudence. The *Flegmatick* have, as we say, (*ny bouche ny esperon*) neither counsel nor dispatch: They are dull both of Body and Mind, and incapable of understanding and performing well. The *Sanguine* have Wit good enough, and gentle qualities; but they they are too sensual and tender, by reason of the softness and mildness of the humour, which ought to be moderated in a Prudent Man. But *Natural Melancholy* gives a solid Judgement, Gravity, Constancy, Patience and Temperance, which are the principal pillars of Prudence. So then, the Melancholy Temper alone is proper for it, and of the rest that which nearest approacheth it, namely the Sanguine. Now every Temper being compounded



pounded of the Four Humours, that in which Blood and Natural Melancholy predominate, will be the most proper of all for Prudence. For these two Humours make a very perspicacious Wit, and a profound and solid Judgement. Melancholy when moderately heated by the Blood and Choler, carries a Man to undertake and execute boldly and confidently, because it is with knowledge of the End and Means. Thus I have given you the Common Opinion. But I esteem it absurd to believe that the *Elementary Qualities* cause such noble Effects as the Inclinations to Prudence, Magnanimity, Justice, and other Virtues. For they are caus'd by the Influence of the Stars, as is found most evidently in Nativities, by which, without seeing the person or his temper, one may tell his Inclinations. But because in every Generation the superior and inferior causes concur together, and the temper almost always corresponds to the Influences; thence *Aristotle* and *Galen* (who understood not the true Science of Cœlestial Powers) have affirm'd, (the former in his *Physiognomy*) That the Manners of Man follow his Temper; And the latter, That the Temperament is by it self the first and true efficient cause of all the actions of the mixt Body, and consequently of the Manners of a Man: Whereby they ascribe that to the Temper which ought to be attributed onely to the Influences. And indeed, the Hermetick Philosophy assigns to the Elementary Qualities no other Virtues, but of heating, cooling, moistning, drying, condensing, and rarifying. Now according to Astrologers, Prudence is from the influence of *Saturn* and *Jupiter*, (who preside over Melancholly and Blood) according as those Planets reign, or favourably regard all the points of the Ascendant and the Middle of Heaven in the Nativity; which are the principal significators of the inclinations and actions of a Man.

The Fourth said, That to attribute that property and Virtue to the Humours to make Men wise and intelligent, is to prejudice the Rational Soul, which being immaterial needeth no material instrument for the performing of its actions; but as it is wholly Divine and the Image of God, it is perfectly intelligent of its own Nature, and by *Reason* the noblest of its Faculties, of it self knows what ever is most hidden in Nature. For if the actions of Knowledge and Prudence depend on the Temper of the Humours, then that which now produceth ratiocination in me should have been the food which I took yesterday: And so those things, which, whilst they were alive, had no other actions but vegetative or sensitive, should, when they are dead, produce intellectual. The Spirits alone put our Humours in motion and action; and when those fail, these remain without any Virtue. Nevertheless those Spirits (onely the vehicles of the Rational Soul) are not the Cause either of Knowledge or Prudence, but onely of Life: much less can those excellent Qualities be attributed to the Humours.

Upon



Upon the Second Point, the First said, That Reward and Punishment are the two pillars of a State; one for the satisfying of Merit, and encouraging Men to Virtue; the other for restraining Malefactors, and turning them from Vice. That consequently they are both necessary, and almost inseparable. Nevertheless Reward seemes to have some degree of necessity above the other; because though Punishment, with its eight species, (which are Fine, Imprisonment, Stripes, Retaliation, Ignominy, Banishment, Servitude, and Death,) serves for Example and for satisfaction to Distributive Justice, (whose end is to extinguish Crimes and reform them) and secure the Good against the Bad; (whence the Wise-man commandeth Magistrates to break off Iniquity, and govern with a rod of Iron) yet is it not good in all times, nor in all places. And *Sylla* did prudently in not punishing his Souldiers, who slew the Prætor *Albinus* in a Sedition. On the contrary, Reward is alwayes necessary, and every where welcome, being the wages of Virtue, as the other is of Vice. 'Tis for that the Labourer cultivates the Earth, that the Souldier goes to the War, and that good Wits employ their time in excellent and profitable inventions. *Darius* preserv'd his Kingdom by having rewarded *Zopyrus*; And on the contrary, *Philip* lost the City of *Damascus* for want of gratifying *Milesius*, by whose means he had won it. So that it is with good reason that *Pliny* saith, in his Panegyrick, That the recompences of good and bad deeds make Men good or bad.

II.

Whether is  
more neces-  
sary in a  
State Re-  
ward or Pu-  
nishment.

The Second said, That in the beginning of the World, when our Nature was created in the perfection of a lust *Æquilibrium*, we had on the one side the inferior part of the Soul wholly subject to the superior; and on the other this superior Soul absolutely submissive to the Divine Will. But the first Man having broken that *Æquilibrium* by his sin, and turn'd the balance towards the side of Evil; this Counterpoise, which like infectious Leven is left in the flesh of *Adam*, hath given us all a tendency and inclination to Evil. Hence it is that Men are lead into all sorts of Vices; and because 'tis the property of sin to blind the Mind, and cloud the Memory with the Reason; they have also forgotten the way which they ought to keep, that they might live like reasonable Men. For remedy whereof, not onely God, who from all Eternity purposed our Reparation, but also Men most vers'd in the knowledge of Good and Evil have establish'd Laws, to restore Man to his *Æquilibrium*, and contain him in his duty both towards God and Humane Society. But because Original Sin powerfully inclines us to Evil from our Nativitie, and it is very rare, if not impossible, to find any one that erres and perseveres so wilfully without fear or hope; therefore God and Kings have appointed two powerful counterpoises, Rewards and Punishments; the former, for good and virtuous actions, the latter, for the Transgression of their Laws. Since

M

then



then Punishment is onely for Transgression of Laws, and Reward for those who besides observing them, proceed further to virtuous actions and such as are profitable to the publick; It is certain, the former of the two is most necessary in a State, as that to which Men are most prone. For it is most true, that Men are naturally more inclin'd to Evil then to Good, because they are corrupted by Original Sin; and we know the most part would willingly desire to grow great by the loss of others, and to plunge themselves in Pleasures and Riches, if they were not restrain'd by the rigor of Laws. This is further confirmed, because the Laws of Men are better observed then the Divine Laws; not but that Men are as ready to infringe those, as these of God, who forbears and is patient after the sin of Man; but because the penalties of Humane Laws are appointed for this Life, and we behold Criminals publickly executed. Wherefore Punishment is the most necessary in a State. Nevertheless Reward is not unprofitable, because it serves to excite to well doing, and is frequently propos'd in the Divine Laws; the corruption of our Nature not permitting us to be lead to do good, for the sake of good alone. Moreover, our own necessity constrains us to seek the support of our Life by our Labours, and to eat our Bread in the sweat of our Countenances, as our Sentence importeth. But to determine whether it be alwayes fit to reward or punish, when there is occasion, this depends upon many circumstances of Times, Places, and Persons: wherein a good part of the skill of a States-man consists. Yet when Reward or Punishment tends to the good of the publick, or the honour of the Prince; neither the one nor the other ought to be omitted, in my opinion, so far as is possible.

The Third said, That the Distick which imports, That the good hate sin out of the love of Virtue, and the wicked out of the fear of Punishment, voids the question. For since the good have nothing to do with any other Reward but what they find in their own satisfaction, knowing otherwise that they are oblig'd to do well; and the wicked need no other salary but the Punishment due to their Crimes; it seemes Punishment is not onely necessary, but alone necessary in a State. Not but that Reward serves for ornament, and for its better being, as Sauces do to raise the languishing Appetite; But in reference to absolute necessity, no person can say that they are to be compar'd together. For although *Plato* calls Reward and Punishment the two grand Demons of Humane Society, yet it is not thence to be infer'd that the one ought to be parallel'd with the other, which is better understood by experience. For compare an Inter-regnum, wherein Crimes are not punish'd, with a conjuncture wherein no persons are rewarded; this latter indeed will discontent those that have a good opinion of their own merit; but the former will be so destructive that no Man can be secure of his Goods, Honour, or Life. On the contrary, phancy  
a State



a State willing to reward all that do well, it cannot be done by Honours, but the same will be vilifi'd by their multitude; nor by money, without ruining some to enrich others. Wherefore Reward is much less necessary then Punishment. Which I affirm in behalf of truth, and not in compliance with my particular opinion, being no more void of Appetite then others; but the experience of the ancient *Greeks* and *Romans*, and of the *Spaniards* and *Portugals*, (the former of which had all the spoils of other Nations, and the latter all the Gold discover'd in the *Indies*) shews us that Reward doth not hinder discontents and revolts: Yea, it is found that the Reward given to one (unless it be accounted just by all the world, which is a rare thing) contents less, and for a less time him that receives it, then it excites discontents in all others that cannot get as much: Like a Mistress, who for one favourite makes a thousand jealous and desperate. Whereas the Punishment of one single person serves for an example and powerful lesson to all others. Add hereunto, that Reward being the sweetest when it is least expected, good people who alone deserve it, are forward to believe and to publish that they meant none at all.

## CONFERENCE XIV.

I. *Of the Seat of Folly.* II. *Whether a Man or Woman be most inclin'd to Love.*

HE that began upon the first point said, That this Question is not unprofitable, because it concernes the original and place of the greatest evil that can befall the more noble part of Man: The decision of which will teach us to avoid the assaults of this Enemy the more easily, when we know where it is lodg'd. Nor is it new; for the *Abderites* having sent for *Hippocrates* to cure *Democritus* of the Folly which they impertinently conceiv'd him guilty of, found him busier after this inquiry by the dissection of many Animals. But it is very difficult to comprehend, for a thing ought to be introduc'd into our Phancy that we may reason upon it, and Folly is a perversion of that ratiocination. Now Folly is taken either relatively or absolutely. In the first acceptation, he that doth any thing contrary to the common opinion is call'd a fool. So 'tis proverbially said, *Chacun à sa marotte*, Every one hath his bable. One is accounted foolish for being too much addicted to meddals, another to Pictures, Flowers, or some such thing, of more curiosity then benefit. Yea one and the same person will sometimes say, I am a great fool for having done this or that. That which seemes Wisdom to one, is oftentimes Folly to others. Thus ought that to be understood which *S. Paul* saith, *The Wisdom of Men is Folly before God.* Absolute

I.  
Of the Seat  
of Folly.



Folly is Absurdness, consisting in the privation and depravation of the action of reasoning. So that me-thinks it may be answer'd to the present Question touching the seat of Folly, that the lation or abolition of any action being in the same organ in which it is exercis'd well, (as blindness in that part wherewith we see) the seat of Folly must be the same with that of Reason; which is therefore to be inquired by us. But because Ratiocination cannot injure it self, (for the *Intellect* useth no Corporeal Organ to understand, but onely the *Memory*, the *Imagination*, and the *Common Sense*, without which it cannot apprehend, nor they without the Corporeal Organs which are in the Brain) some have held that the Soul performeth not its reasoning with one single Organ, but with many together. Others have ventur'd to assign some particular place thereunto. The former opinion is founded: I. Upon the Maxime, That the whole Soul is in the whole Body, and the whole Soul is in every part, and consequently she performs her actions in the whole Body. II. That 'tis the temperature of the Humours which are throughout the whole Body, that serves for an instrument to the Soul. III. That the animal spirits are made of the natural and the vital; and so all the parts together contribute to Ratiocination, and not the Animal alone. Consequently, also, the whole Body, and not the Brain alone. IV. That the Brain in other Animals is perfectly like in structure to that of Man, having the same membranes and medullous substance, the same sinuosities, ventricles and veins; yet he differs from a Beast in the whole form and figure; and therefore must be consider'd intire, and not in one part alone. Lastly, that as God is most *eminently* in Heaven, yet acts no less upon Earth; So Reason, which is his image, discovers it self best in the Brain, yet ceaseth not to display it self in the Heart and other parts, which are not moved, and perform not most of their actions but by Reason, and the Will which is subject to it. The Second Opinion is, That the Judgement is made in one of the *four ventricles* of the Brain, which most account to be the third, as the fourth is attributed to Memory, and the two first or interior to the *Imagination*: Whence it is that we scratch the hinder part of the head, as if to chafe it, when we would remember any thing: that we lift up the head when we are about to imagine, and hold it in a middle situation when we reason. Which is further confirm'd, for that they are wounded or hurt in those places, respectively have those faculties impaired or abolish'd. Now to find the causes of such Lation of the faculties, we must consider what is necessary for the exercising of them. Three things are so, the Agent, the Organ, and the Object. The Soul which is the Agent, admitting (neither *magis* nor *minus*) no degrees, being immortal and in no wise susceptible of alteration, cannot be hurt. The Brain, which is the Organ, being well or ill dispos'd, either by distemper, or ill conformation, or solution of continuity, may help or hinder the Memory and the Imagination.



nation. The Object also may be fallacious, and represent to us that which is not.

The Second said, Folly comes either from the Nativity, as some are born deaf and dumb, or after the birth. From the Nativity, when the natural heat is deficient; as in small heads, which have too little quantity of Brain, or those that are flat-headed, or of some other bad figure containing less than the round, and discomposing the Organs; Or on the contrary, in great heads which are said to have little Wit, because the Spirits are too much dispers'd and humid, as we see in Children. After the Birth, as it happens to decrepet Old Men, to such as live in a thick Air, or through watchings, fastings, excessive afflictions, diseases, falls or blows, especially if an Impostume follow. For in such cases there are instances of great forgetfulness or Folly, as *Gaza* forgot even his own Name: It is divided into *Deliration*, *Phrensie*, *Melancholy*, and *Madness*. Though the word *Deliration* be taken for all sorts of Folly, yet it more strictly signifies that which is caus'd by rising of the hot humours and vapours to the Brain, and frequently accompanies Fevers and Inflammations of the internal parts. *Phrensie* is an Inflammation of the membranes of the Brain, caus'd by the bilious blood or humour, usually with a Fever, and a languid Pulse, in regard such phrenetic persons are intent upon other things, whereby their respiration is less frequent. *Melancholy* (both the Ideopathical, which is in the Vessels of the Brain; and the *Sympathetical*, or Hypochondrical, which ariseth from the Liver, the Spleen, and the Mesentery) ariseth from that humour troubling the Brain; and by its blackness making the patients sad and timorous; or as *Averroes* will have it, by its coldness, because Heat emboldens, and Cold makes fearful, as we see in Women. As this humour causeth Prudence and Wisdom when it is in its natural quality, so when it is corrupted it produceth Folly; there being as little distance between the one and the other, as between the string of a Lute stretch'd up to the highest pitch, and the same when it is broken: Which made *Montaigne* say, That *there is but one turn of a peg between Wisdom and Folly*. If this Melancholy humour be moveable and bilious, it will cause imaginations of various absurd things, like to those of Dreams. Wherefore *Aristotle* compares the same to waters in motion, which alwayes represent objects ill. If it be more fix'd, it causeth insuperable Opiniastry. As is observ'd in those who phancy themselves Pitchers, Cocks, Geese, Hens, Glasse, Criminals, Dead, Damned, and so in *infinitum*, according to the diversity of Phancies, Conditions, and Inclinations. The Folly of Love is of this kind, which hath caus'd desperation and death to many. Lastly, *Mania*, or *Madness*, is an alienation of the Mind, not mingled with fear and sadness, as Melancholy is, but with boldness and fury, caus'd by the igneous and boyling Spirits of the other Choler, which possessing the Brain, and at times the whole Body,

by



by their immoderate heat render Men foolish, furious, and daring. Such a heat, that they are insensible of cold in mid Winter, though stark naked; sometimes so excessive that it degenerates into Lycanthropy, rage, and many other furious diseases. By the induction of all which species of Folly, it appears, that whence soever the matter which causeth Folly ariseth, it makes its impression in the Brain. For though the Soul be as much in the heel as the head, yet it is improper to place Wisdom in the heel, but it may reasonably be assign'd to the Brain. Yet to circumscribe it to a certain place, excluding any other, me-thinks ought no more to be done, then to assign some particular corner of a Chamber to an Intelligence, of the Nature of which the Soul participates.

The Third said, Melancholy is the cause of Prudence onely *by accident*, hindring by its dryness the too great mobility of the Blood, and by its coldness checking the too impetuous sallies of the Spirits; but it is *by it self* the cause of Folly, and also of the two other Syncopies, Eclipses, and Alienations of the Judgement which are observ'd in the Apoplexy and the Epilepsie, or Falling-sickness. If Melancholy abound in the Brain, it either possesses its ventricles, or predominates over its temper. If it be in the ventricles, it either molests them by its malignity and acrimony, and causeth the Epilepsie; or else it fills them, and causeth the Apoplexy. For as we put Oyl upon a piece of Wine that is prone to decay and sowre; which Oyl being aerious, and consequently humid, by its subtile and unctuous humidity keeps its particles so united, that the Spirits of the Wine cannot penetrate through it; and so being cover'd by it, they are restrain'd and tarry in the Wine: In like manner Melancholy by its tenacious and glutinous viscosity, like black shining pitch, keeps its particles so conjoyn'd, that the Spirit contain'd in the ventricles, cannot issue forth into the Nerves to serve for voluntary motion and the functions of sense; whence followes their cessation. But if the Melancholy Humour presseth the ventricles by its troublesome weight, then they retire, and by their retiring cause that universal contraction of the Nerves. If this Humour prevail over its temper, then it causeth deliration or Dotage, and that in two manners. For if it exceed in dryness, which is a quality that admits degrees, then by that dryness (which is symbolical and a kin to heat) it attracts the Spirits to it self, as it were to make them revolt from their Prince, and to debauch them from their duty; employes them to fury and rage, and causes madness, making them follow its own motions, which are wholly opposite to Nature. For being cold, dry, black, gloomy, an enemy to light, society and peace, it aims at nothing but what is destructive to Man. But if the cold in this humour exceed the dry, then it will cause the disease called *Melancholly*, which is pure Folly, and makes the timorous, trembling sad fools; for cold not onely compresseth and incloseth the Spirits in the Brain, and  
stupidifies



stupifies them so as to become unactive, but hath also a back blow upon the Heart, the reflux of its infection exhaling even to that seat of life, and streightning it into it self, whereby its Spirits become half mortifi'd. Moreover, this Humour sometimes piercing through the Brain comes about with a circumference; and lodges amongst the Humours of the Eye, placing it self before the pupil, and the CrySTALLINE, under the Tunics which cover it: by which means the Melancholy persons seem to behold dreadful Objects abroad, but it is within his Eye that he sees them. As for the same reason they who have the beginning of a *suffusion* imagine that flies, flocks of wool, or little hairs, because of the Humour contain'd there; which if it be Blood, they seem red; if Choler, yellow; if Melancholy, black. But in all the cases hitherto alledg'd, me-thinks, the *Seat of Folly* is the same with that of *Imagination*, which is the Brain, and not any of the ventricles in particular: for since the *Intellect* acteth upon the phantasmes of the *Imagination*, this upon the report of the *Common Sense*, and this upon the information of the External Senses, which are diffus'd throughout all the Brain, and each possesseth a part of it, the whole Brain must necessarily contribute to Ratiocination.

Upon the Second Point, the First said, Women are of a more amorous complexion than Men. For the Spirits of Women being more subtile, (according to *Aristotle's* Maxime, That such as have more tender flesh have more subtile Spirits) they are carri'd with more violence to amiable Objects. And Love being, according to *Plato*, the off-spring of Plenty and Indigence; that of Women arising from Indigence and Necessity, moves them more powerfully to obtain what they need, than that of Men, which proceedeth from Plenty and a desire to communicate. And therefore the Philosopher saith, the Woman desires the Man, in the same manner that the first Matter doth new forms, where-with it is insatiable. The little knowledge they have of the goodness of what they affect causeth them also to love with greater ardour. Moreover, the Restraint which they ought to observe, with shame and fear, makes the inward motion more violent, and the inquietudes greater; And, like Fire cover'd with ashes, they preserve their Love under a honest modesty much longer than Men, who discover theirs undiscrately. The Hysterical Fits, Jaundies, Green-sicknesses, and other dangerous symptomes which Love produces in them, even to Erratical Fury, evidence that this Passion is much more violent in them than in Men, since it is able so notably to alter their natural constitution. Wherefore if we believe the Sooth-sayer *Tiresias*, Nature has in requital advantag'd them above Men in the enjoyment of the fruits of that Love.

The Second said, That the Woman is more inclin'd to Love, and also loves more constantly than the Man, because of the weakness

II.  
Whether Women  
or Men  
are more in-  
clin'd to Love.



weakness of Knowledge. For proof of which it must be observ'd that Knowledge gives the condition to Good, which is the Object of the *Will*, and the reason of Amability. Good hath from it self and its own principles the nature of goodness, which consists in a two-fold convenience; the one absolute, in reference to the thing which it accomplishes and perfectionates; the other relative, in regard to other things to which that Good may be refer'd, and by which it may be participated under the notion of Honour, Profit, or Pleasure. But the being amiable, it derives from the Knowledge. As Colours have from their own principles, (which are the four First Qualities blended in the Mixt Body) their *being* of Colour, but not their being visible, which they derive from the Light; without which Scarlet is indeed, in the night, Scarlet, but not visible. So the being amiable is deriv'd to the Object by the light of our Knowledge. Whence we see, that many times evil is lov'd, because it is judg'd good. This being premiz'd, it followes, that Man who knows more clearly loves more slightly. He knows better, because he hath more heat, and consequently a more quick Imagination, and so a stronger Knowledge. For Minds are equal, and differ not but by reason of the Phantasmes. Moreover, he is more dry, which hinders his Knowledge from being obscur'd with the clouds of Humidity. On the contrary; the Woman being colder hath less vigour in her Imagination; and being more moist, hath her Phantasmes more thick by the vapour and inundation of humidity; and consequently hath a weaker reflection. For the dryness in Man is that which occasions the reflection of his Knowledge; because it doth not so easily obey the motion of heat, and follow it, as humidity doth; and so the heat being active is constrain'd to reflect to take and carry along with it the dryness which remains behind; and thus being forc'd to stay, and being incapable of idleness, it employes it self upon the Phantasm already form'd, and contemplates it better then before. On the contrary, the Woman pursues her point and goes forward, because her moisture follows what heat she hath. Thence it is that her first thoughts prevail over her second. For having but few reflections, the vigour of their Knowledge, being almost alwayes direct, languisheth in a little time. Moreover, the Man being more perspicacious, knoweth better then the Woman that all visible Good is frail and inconsiderable, and mingled with much impurity and imperfection. Which the Woman cannot judge so well. Yea, I say, 'tis a sign of a very good Spirit to be inconstant in Love. For Good, in general, being the Object of the *Will*, every particular good is but a parcel of it. The strong Mind hath no sooner tasted one Sensual Good but it despises it, as not containing the amplitude of its Object, and therefore goes to seek others.

The Third said, That indeed the less we know imperfect things, the more we love them. Whence they who are short-sighted



lighted are soonest taken with the first Objects : But, on the contrary, perfections the greater they are, the more exactly they require to be known ; as the work of an excellent Painter cannot meet with Eyes too piercing, nor persons too skilful, to make known its excellence. But the Knowledge alone of what is lovely is not enough to excite us to love it ; for Eunuchs and impotent Old Men want not Knowledge, but that inward ardour is excited by the abundance of Spirits that kindle Love ; which their coldness is no longer fit to produce. Which being granted, Men will then have more Love than Women for Objects, which deserve it, because they have more Knowledge ; and also they will have more for those which do not deserve it, because they abound more with those Spirits.

### CONFERENCE XV.

I. *How long a Man may continue without eating.*

II. *Of the Echo.*

**U**PON the First Point all agreed, though in several words, That if Definitions are dangerous in Law, they are no less in Physick ; and the more a Man knows, the more he finds himself deterr'd from establishing Maximes : which is principally true in the present Subject, the great diversity of circumstances not permitting a limitation of the time. For the understanding whereof, it is to be observ'd that our Body is like a Lamp, to which the natural heat is instead of Fire, and the radical moisture of Oyl. An Embryo would be as soon dead as form'd, if the Blood of the Mother who gave him life, did not serve for Oyl and Matter to entertain the natural heat, which consumeth part thereof, concocteth and dissecateth the rest, and by little and little extendeth what the genitures have contributed into Bones, Nerves, Veins, Arteries, Muscles, and Skin ; till the House becoming too little for the Inhabitant, and he a greater Lord than at his first entrance, and too burthensome to his Landlady, his Harbingers take up a lodging for him elsewhere. And whereas before he liv'd in common, and with the life of his Mother, he thenceforth begins to keep his ordinary apart, yet so regular, that he needs no more for day and night but his two bottles. Now if we speak of these, it is certain that a new-born Child hath been frequently seen two or three dayes without sucking, and continually to reject the Milk which the Nurse offer'd to distil into his Mouth : The nourishment which he had drawn by the Navel in too great abundance supplying that defect, as the yolk of the Egg doth in the Body of the Chicken newly hatch'd. But when he begins to suck, the fluidity of

I.  
*How long a  
Man may be  
without  
Eating.*



Milk doth not afford him nourishment solid enough to serve all that time. And therefore the Cynick *Cratippus* was ridiculous when he writ a Letter to his Son's Nurse to make him fast, that he might be accustom'd to abstinence betimes; that Age being no more capable of a Habit then of Discipline. Do Children use more solid food? *Hippocrates* saith, they bear fasting more uneasily then grown Men, and these then Old Men, because they abound more with natural heat, especially they, saith he, who have the best Wits. Moreover, Tempers, Seasons, Countries, different exercises, diversity of Food, Custome, and the disposition of Health, and the Organs, make a notable difference herein. Of Tempers, the Cholerick is the most impatient of fasting. They cannot sleep unless their Belly be full, and by its mild vapours temper the acrimonious exhalations of their Choler; which otherwise causeth the exasperated Spirits to move in the Arteries and in the Organs of the Senses; instead of filling them with the benigne vapours which cause sleep. Hence the Proverb, Choler and Hunger make a Man fretful; and, the Hungry Belly hath no Ears. Likewise the Sanguine is not very fit for long abstinence. The Melancholy bears it better, but above all, the pituitous and Flegmatick. To these one day's fasting is no more trouble then to the others to want a Break-fast. Yea, should no other consideration lead them to fasting, they would be sick unless they sometimes debar'd themselves from a meal or two a day. Examples of fasting are afforded by Bears, Sea-calves, Dormice, Snails, Serpents, and other Insects, which remain for several Moneths hid in their Caverns using rest instead of food; their natural heat being then so weak, that the fat or viscous flegme wherewith they are provided, suffices to support them all that time. Of the Seasons, Winter causes such as fast to think the dayes longer then the Sun makes them; because the natural is then most vigorous. Next Winter, Autumne is least proper, for the same reason; and because the Spirits need reparation of the loss caus'd to them by the Summer. The Spring is more fit, in regard of the plenty of Blood which then boyles in us. But Summer most of all, because there needs less fuel for a less fire, as our internal heat is at that time. Of Regions, the cold and Northern are less compatible with abstinence, the hot and Southern more; but the temperate most of all. Whence we see that the Orientals fast more easily for many dayes together, then we one single day. Of Exercises, as the more violent disturb the digestions, (as we see in those that ride post) the moderate promote them, and make room for Aliments; so they who use little or none at all, need the less food. Solid Victuals are longer before they be subdu'd in the Stomack then liquid; the fat and of oiley, afford most nourishment. Therefore Bread hath a great stroke in digestion, as being all Oyle. As is seen in the correction of some Medicaments which is done with burnt Bread; for a piece of Bread as big as ones thumb being



being set on flame will burn as long as the same weight of Oyl. Whence Abstinence is more supportable after such kind of food, then after broth or potch'd eggs. But Custome is so considerable in this matter, that those who are us'd to make four meals a day, are no less troubled with intermitting them, then others are one of their two ordinary repasts. And experience shews, that if you take up an ill custome of drinking at bed-time without necessity, you must use violence to your self to break it off. Yet the disposition of the Body is the main matter, whether we consider the diversity of Organs destinated for nutrition; whence those that have large stomachs and Livers sooner yield to hunger, or whether we divide Bodies into such as are healthy, (which dispense with less eating) and such as are distemper'd with diseases, the actions whereof are depraved. Amongst which we should speed ill if we look'd for abstinence in those who have a *Boulimie*, or *Canine Hunger*, proceeding either from the too great suction of the Mesaraick Veins, of which the Stomack is made sensible by the Nerves of the sixth Conjugation; or because the Melancholy humour design'd to stimulate the stomach, and provoke Appetite by its acrimony, continually flows thither, and not after the concoction is perfected: The cure of which Malady consists in eating, and chiefly in drinking pure Wine, which is distributed more speedily then any nourishment. But when those Mesaraick Veins suck no more Chyle, either because their passages are stop'd, or for that the above mentiond acide liquor is diverted elsewhere, then ariseth a disease call'd *Anorexie*, or *Nausea*, whereunto the abstinence of those must be referr'd who have continu'd some weeks, yea moneths, and years, without eating and drinking. For we may well wonder at that Hydropick Person, to whom his Physitian having forbidden drink, he went to him at the years end to ask him whether it were time to drink. But we may wonder more at what we find in Histories, (even of our own time) which are full of relations of persons of either sex, that lived some years without taking any Aliment. M. *Cytoys* (Physitian to the Cardinal Duke of *Richelieu*, a Learned Man, and who needs no other Elogium but the choice of such a Master) publish'd a very ingenious treatise above twenty years since, concerning a young Maid of *Confolans* in *Poitou*, which liv'd many years in that manner. And lately there was such another in the Province of *Berry*. Some have conceiv'd such persons to be nourish'd with thick Air by the Lungs, taking that for a Maxime which is not agreed upon, That Inanimate things (and much less the Elements) can nourish. Some ascribe the cause to the relaxation of the Nerves, which hinders the stomach from being sensible of the suction of the Mesaraick Veins. But in my conceit, the reason is, because their Bodies are almost indissoluble, and so compact that nothing exhales from them. Whereunto adding a viscous and tenacious flegme, a very small heat, and no exercise, the case will be the



same as 'tis in a fire-brand of Juniper. So we see fire lasts not so long in fifty faggots of straw as in an Arm-full of Match. Yea, not to detract from Miracles, whereby God so reserves to himself the doing what he pleaseth, that he doth not forbid our inquiring into Natural Causes; since it is held that there have been found sempiternal lamps and other lights, the oily humidity not exhaling out of the vessel, the same may seem more possible in the proportion of our natural heat with its radical moisture: For besides those Examples, we have that of some Animals, and Butter-flies flie, engender, and live a long time without nourishment. Which is also seen more particularly in Silk-worms, the most exquisite Emblem of the Resurrection that is in Nature. From which disproportion, which appears so great between those who cannot bear one day's fasting, and others who pass years without eating; we may easily conclude (to the end where I began) that there is no limited time as to the question propos'd. For though it be ordinarily bounded within seven days, yet a certain person having been cur'd by a fast of that duration, it cannot be said that all dye of that wherewith some are cur'd.

II.  
Of the Echo.

Upon the Second Point it was said, The Echo is a reflected, multiply'd, and reciprocal sound, or a repercussion of sound made by hollow rocks or edifices; by the windings of which it comes to be redoubled, as the visible species is reflected in the Mirror. It is made when the sound diffus'd in the Air is driven into some hollow, smooth, and solid Body, which hinders it from dissipating or passing further, but sends it back to the place from whence it came, as the wall makes the ball rebound towards him that struck the same against it. According as the sound is violent, and the space little or great, it returns sooner or slower, and makes an Echo more or less articulate. It may be hence gather'd, whether Sound is produc'd by the Air or some other Body, since fish have the use of their Ears in the Water, and the voice passeth from one end of a Pike to the other, without resounding in the Air. And which is more strange, strike as softly as you please with your finger upon the end of a Mast lay'd along, he that layes his Ear to the other end, shall hear it better than your self; and a third that doth the like at the middle, shall hear nothing at all. In the Church *de la Dorade*, at *Tholouze*, he that whispers at one end of the wall, is heard, at the other by reason of its smoothness. On the contrary, it is reported that in *Scotland* there is a stone call'd the *Deaf-stone*, because they which are on one side of it hear not the noise, no not of Trumpets sounding on the other, the stone sucking up the sound as a sponge doth Water.

The Second said, That the Image which we see of our selves in a Looking-glass, being as it were alive and yet dumb, is less admirable than the Echo which we hear not, and yet hear, complain, sing, and talk with us, without Body and without understanding.



standing. This Echo is not onely a refilition or reflexion of the sound or voice, or rather the voice it self so reflected and sent back by the opposition of some solid Body, which makes it return whence it came, and stops its course and flux. For then it would follow, that as often as we speak we should hear Echoes; seeing we never speak but there is made some refilition of our voice, by means of the opposition of solid Bodies near us, and encompassing us on every side. And yet we seldom hear any thing but our bare voice or some confus'd murmur; as it happens in new houses, in Churches, under a vault, before a wall, and other such places, in which we ought to hear a very articulate Echo, since the voice is reflected better there then elsewhere. I think therefore then the Echo is made in the same manner as the reflection of the Sun's light; or of the rayes of any other fire whatsoever, by hollow mirrors, which unite that light and those rayes, and so produce another fire. For as fire cannot be produc'd by plain or convex mirrors, which reflect but one ray in one and the same place, and all sorts of concave or hollow mirrors cannot be proper for it, because it is necessary that the cavity be dispos'd and made in such manner that it may be able to reflect a sufficient quantity of rayes in one and the same place; which being conjoyn'd and united together, excite again and re-kindle that fire from which they issu'd, which seem'd vanish'd by reason of the dissipation of its heat and rayes: So the Echo, (which is nothing but the same voice reanimated and reproduc'd by the course and reunion of several of its rayes dissipated, and afterwards reflected into one and the same place, where they are united and recollected together, and so become audible a second time) cannot be produc'd by bare walls and vaults, which do not reflect and recollect a sufficient quantity of those rayes into one and the same place, but onely resemble many of them near one another, whence ariseth a murmuring or inarticulate Echo. Now as Art imitates Nature, and sometimes surpasses her, so we find there are Burning Mirrors which re-unite the rayes of fire; and in like manner there may be made Artificial Echoes without comparison more perfect then those wherewith chance and the natural situation of places have hitherto acquainted us. Whereunto, beside what I have already mention'd, the *Hyperbole*, the *Parabole*, and chiefly the *Oval* greatly conduce, with some other means which are treated of in the *Cataptricks*.

The Third said, The Echo, the Daughter of Solitude, and Secretary of weak Minds, (who without distrusting her loquacity, fruitlessly acquaint her with their secret thoughts) teaches us not to declare our secrets to any person, since even stones and rocks cannot conceal them, but she especially affords entertainment to Lovers; possibly because she ownes the same Father with Love, namely, Chance. For as no Love is more ardent then that which arises from the unlook'd for glances of two Eyes; from the collision of which issues a spark, little in the beginning, but



but which blown up by the violence of desires, grows at length into a great flame; so though Art studies to imitate the natural Echo, and the pretty conceits of that Nymph, yet it never equals her graces which she borrows onely from the casual occurrence of certain sinuosities of Rocks and Caverns in which she resides; the rest of her inveiglements remain unknown to Men; The Cause why Antiquity made her a Goddess. All which we can truly say of her, is to define her a reflection of the voice made by an angle equal to that of incidence: Which is provid, because the Echoes in narrow turnings are heard very near him that sings. 2. Nature always works by the shortest way, which is the streight; therefore Reflection is made by the same. 3. When the voice is receiv'd in a streight line it formes no distinct Echo, because it is united with the same direct line whereby it was carry'd, which by that means it dissipateth and scattereth. The same happens in a convex line. But if the Body which receives it be concave, it will recollect it from the perpendicular of the speakers mouth towards that Body, and 'tis by the concourse of the voice reflected in that line that the Echo is form'd. 4. The Body which receives the voice must be sonorous, which none is except it be hollow. From which four propositions, I conceive, the way may be deriv'd to imitate the Echo, and tame that wood-Nymph in some manner.

The Fourth said, *Vitruvius* was not ignorant of this Artifice, having very dextrously imitated the Nature of the Echo, by the convenient situation of some earthen vessels, partly empty, and observing a proportion of plenitude to vacuity; almost like that which some Musicians make use of to represent their six voices. And that which hath been made in the *Tuilleries* justifies him. Yet Art finds a greater facility in this matter, near Lakes, Hills, and Woods, naturally dispos'd for such a re-percussion. But which increases the wonder of the Echo, is its reduplication, which is multiply'd in some places seven times and more; the reason whereof seemes to be the same with that of multiplication of Images in Mirrors. For as there are Mirrors which not onely receive the species on their surface so plainly as our Eye beholds, but cannot see the same in the Air, though they are no less there, then in the Mirror; so there are some that cast forth the species into the Air, so that stretching out your arm, you see another arm as it were coming out of the Mirror to meet yours. In like manner it is with the voice. And as a second and a third Mirror, rightly situated, double and trebble the same species; so other Angles and Concavities, opposite to the first, cause the voice to bound, and by their sending it from one to another multiply it as many times as there are several Angles; but indeed, weaker in the end then in the beginning, because all *Reaction* is less then the *First Action*.



## CONFERENCE XVI.

I. *How Spirits act upon Bodies.* II. *Whether is more powerful, Love or Hatred.*

IT is requisite to understand the Nature of ordinary and sensible actions, that we may judge of others; as in all Sciences a known Term is laid down to serve for a rule to those which are inquir'd. So Architects have a Level and a Square, whereby to discern perpendicular Lines and Angles. Now in Natural Actions between two Bodies there is an *Agent*, a *Patient*, a *Contact*, (either Physical or Mathematical, or compounded of both) a *Proportion* of Nature and Place, and a *Reaction*. Moreover, *Action* is onely between *Contraries*; so that *Substances* and *Bodies* having no contraries, act not one against the other, saving by their *qualities*: Which, nevertheless, *inhering* in the subjects which support them, cause Philosophers to say, that Actions proceed from *Supposita*. Now that which causeth the difficulty in the Question, is not that which results from the Agent; for the Spirit is not onely a perpetual Agent; but also a *pure Act*; nor that which proceedeth from the Patient; for *Matter* which predominates in Bodies, is of its own Nature, *purely Passive*. But 'tis from the want of Contact. For it seemeth not possible for a Physical Contact to be between any but two complete substances. And if we speak of the Soul which *informs* the Body, it is not complete; because it hath an essence ordinated and relative to the Body. If we speak of Angels or Dæmons, there is no *proportion* of Nature between them and Bodies, and much less resemblance as to the manner of being in a place. For Angels are in a place onely *definitively*, and Bodies are *circumscrib'd* with the internal surface of their place: How then can they act one upon the other? Nor can there be reaction between them. For Spirits cannot part from Bodies. But on the other side, since Action is onely between Contraries, and Contraries are under the same next Genus, and Substance is divided into Spiritual and Corporeal, there ought to be no more true Action then between the Soul and the Body, both Contraries; not onely according to the acception of Divines who constantly oppose the Body to the Spirit, and make them fight one with the other; but speaking *naturally*, it is evident that the proprieties of the one being diametrically opposite to those of the other, cause a perpetual conflict with them; which is the same that we call Action. *Contact* is no more necessary between the Soul and the Body to infer their action, then it is between the Iron and the Load-stone which attracts it. What *Proportion* can be found greater then between *Act* and *Power*, the Form and the Matter, the Soul and the Body, which are in the same place. As for *Reaction*,

I.  
How Spirits  
act upon  
Bodies.

supposing



supposing it to be necessary (whereof yet we see no effect in the Sun, nor the other Cœlestial Bodies, which no Man will say suffer any thing from our Eye, upon which nevertheless they act, making themselves seen by us: And Lovers are not wholly without reason when they say a subject makes them suffer, remaining it self unmoveable.) It is certain that our Soul suffers little less than our Body, as is seen in griefs and corporal maladies, which alter the free functions of the Mind, caus'd by the influence of the Soul upon the Body through Anger, Fear, Hope, and the other *Passions*. The Soul then acts upon the Body, over which it is accustom'd to exercise Dominion from the time of our Formation in our Mothers womb, it governs and inures it to obey; in the same manner as a good Rider doth a Horse whom he hath manag'd from his youth, and rides upon every day. Their common contentment facilitates this obedience; the instruments the Soul makes use of are the Spirits, which are of a middle nature between it and the Body. Not that I fancy them half spiritual and half corporeal, as some would suppose, but by reason they are of so subtile a Nature that they vanish together with the Soul: So that the Arteries, Ventricles, and other parts which contain them, are found wholly empty immediately after death.

The Second said, That if we would judge aright what ways the Soul takes to act upon the Body, we need onely seek what the Body takes to act upon the Soul. For the lines drawn from the centre to the circumference are equal to those from the circumference to the centre. Now the course which it holds towards the Soul is thus. The Objects imprint their species in the Organ of the outward *Sense*; this carries the same to the *Common Sense*, and this to the *Phancy*: The *Memory* at the same time presents to the *Judgement* the fore-past Experiences which she hath kept in her Treasury; The *Judgement* by comparing them with the knowledge newly arriv'd to it by its Phantasmes, together with its natural habit of first principles, draws from the same a conclusion which the *Will* approves as soon as *Reason* acquiesceth therein. According to the same order the *Will* consignes the Phantasmes in the *Memory* and the *Phancy*, this to the *Common Sense*, and this to the Organs of the *Senses*. For Example, as soon as my *Judgement* hath approv'd the discourse which I make to you, and my *Will* hath agreed thereunto, she consigns the species to my *Memory*, that it might remember to reduce them into this order, according to which my *Memory* distributed them to my *Imagination*, this to my *Common Sense*; this to the Nerves appointed for the Motion of my Tongue, and the other Organs of Speech; to recite the same, and now into those of my hand, to write them down to you.

The Third said, That the clearing of the Question propounded depended upon two others. First, what link or union there may be between a Spiritual and a Corporeal thing. Secondly, (supposing that of the six sorts of Motion the Spirits

can



can act onely by the Local, how they can touch a Body to remove it locally; since there is no Contact but between Bodies. To the first I answer, that there is no need of union, such as that which joynes the Soul to the Body, for joyning the *Act* with its true *Power*; if there be any in us, it must be that which we see is necessary for the communion of Action. For when Actions cannot be exercis'd but by two parties of different Nature, there is found an Union between those different Natures, which is very natural, and founded upon the necessity of such Action. Wherefore I am so far from thinking the union of the Soul with the Body a strange thing, that I should wonder more if there were none. For the better understanding whereof, it is to be observ'd that our Soul hath two sorts of Actions; one peculiar to it self, as to *Will*, and to understand; the other common with the Body, as to See, Hear, Feel, &c. These latter are as much natural as the former. And as, if it were in a State in which it could not exercise the former, that State would be violent to it, and contrary to its Nature; so it is equally troublesome to her while she cannot exercise the latter. Since therefore it is a part of the Nature of the Soul to be able to exercise its functions, it is consequently natural to it to be united to the Body; seeing without such union it cannot exercise those functions. Now I am no more solicitous to know what this union is, then to understand what that is which unites one part of an essence with the other; since the Body is in some manner the essence of the Soul, making one *suppositum* and individual with it, and the Soul hath not its Nature intire, saving when it is united with the Body. I pass to the Second, and say, that, supposing two sorts of Contact, one of a *suppositum*, the other of *Virtue*; the Spirits touch the Body, which they move locally, by a Contact of *Virtue*; by impressing the force of their motive faculty upon the Body which they will move; as my hand impresseth its motive virtue upon the ball which I fling; which virtue, though extrinsecal, persists in the ball as long as it moves, even when it is distant from my hand. And although there is some disparity, inasmuch as the hand and the ball are both corporeal, which a Spirit and a Body are not; yet since our Soul applies its motive virtue to the Body which it animates, it is probable there are many qualities common both to Spiritual and Corporeal Substances; as is the power of acquiring habits. And it is also likely that the power of moving from one place to another, which is in a Spirit, is not different in *specie* from that which is in a Horse, although their Subjects differ. If therefore the motive faculty of Bodies is that of the same species with that of Spirits, why should we account it strange that that of a Spirit should be communicated to a Body?

The Fourth said, That the Example of our Lord carried by the Devil to the top of a Mountain and of a pinnacle of a Temple, shews sufficiently that Dæmons can act upon Bodies,



and that all natural things falling under the cognisance of Sense are moveable in their activity ; yet not at once, and in gross, but one thing after another. For an Angel not being an *Informing Form*, ty'd and connected to any particular sensible Nature (as the Rational Soul is) but an *Assisting Form*, that is, an External Agent which moves and agitates it to pleasure, it is indifferent, and can determine, to move what Body, it pleases. But sensible things are not subject to Spirits, saving so far as Local Motion. For the Devil acts either upon the Body, or upon the Soul, as it is in its Organs. If upon the Body, he either doth it alone, or by the intervention of another Agent. If the latter, then there must be a Local Motion to apply the same to the Body upon which he causeth it to act for the tormenting or moving of it. If he doth it by himself *immediately*, and causeth pain in the parts, it is either by solution of continuity, or by distention of those parts, or by compression of them. All which is no more but dislocating them, and moving them out of their right situation. If he causes a Fever, it is either by collecting the humours from all the parts ; For Example, Choler, which congregated together in too great quantity, distempers the Body ; or else by restraining the perspiration of the fuliginous vapour, which is the excrement of the third Concoction ; and being with-held within causeth the putrefaction of the humours ; and all this is local motion too. By which also he produceth all the diseases which he is able to cause, inspiring a putrid Air, which like Leven sowers and corrupts the humours. If he acts upon the Senses and the Passions, he doth it either outwardly, by some mutation of the Object, or inwardly, by some alteration of the Faculty. If the former, it is because by a Local Motion he formes a Body, heaping together, uniting and adjusting the materials necessary thereunto ; as the Air, an aqueous vapour, a terrene and unctuous exhalation, and the heat of the Sun, or some other, which he employes artificially (according to the experience which he hath acquired throughout so many Ages) till he make them correspond to the Idea of the Body which he designs to form. All the Actions of Men are perform'd in like manner, by putting together, conjoyning, or retrenching, or separating things : In one word, by apposition or separation. If he acts internally upon the Faculty, 'tis either upon the Phancy, or the Appetite, or the External Sense. Upon the Phancy, either by compounding one Phantasm of many, as it happens in sleeping, or else by acting upon a single one, to make it appear more handsome or ugly ; More handsome, by the concurrence of many pure, clear, refin'd Spirits, which enliven and embellish that Phantasm ; as we see a thing appear more handsome in the Sun ; More ugly, by the arrival of certain gloomy and dark Spirits, which usually arise from the humour of Melancholy. In the Appetite, if he excites Love there, 'tis by the motion of dilatation expanding the Spirits, and making them take up more room ; If Hatred or Sadness, it is coarcting the  
same



same Spirits by compression. He can also cause a subtile mutation in the outward Senses internally, especially upon the sight. As we see those that have a suffusion beginning, imagine that they see Pismires and Flyes, which others besides themselves behold not. Moreover, Melancholy persons often terrifi'd with various frightful representations; the cause whereof is an humour extravasated between the Tunicles of the Eye under the *Cornea*, before the Crystalline which disturbs the sight with various shapes by reason of its mobility; as the Clouds appear to us of several figures. Thus and more easily can the Devil transfer the humours, and, managing them at his pleasure, make them put on what figure he will, to cause delusion. In fine, all this is perform'd by the Local Motion of the parts, humours, or Spirits.

The Fifth said, That the foundation of doubting, is, that there is requir'd proportion between the Agent and the Patient. Which is prov'd, because it is requisite that the patient which is *in Power* be determin'd by the form receiv'd; and it seemeth that a spiritual thing cannot produce a form that may determine a material thing. That it produceth nothing material, is evident, because the action and the product are of the same Nature. Now the action of a Spiritual Entity cannot be material, to speak naturally. Yet it is certain that God acts in corporeal things, though he is a pure Spirit. But it may be answered, That an Infinite Power is not oblig'd to the Rules of Creatures; Besides, that his Ubiquitary Presence sufficeth to impart Motion to all; as also that he containing all things *eminently* is able to produce all things. But if to contain *eminently* is to have a more perfect Being, capable to do what the lesser cannot; this is not satisfactory. For the Question is, How that more perfect Immaterial Being can produce that which Material Beings produce. To which, the saying that it is a more perfect Being, doth not satisfy. For then an Angel should be naturally able to produce all the perfections which are inferior to him; which is absurd. It follows therefore, that the Cause must contain the Effect, that it may be able to produce it; and that, since a spiritual Being doth not contain material things, either those which we call Immaterial, are not so at all; or else God *immediately* produceth in them the effects which we attribute to them. For I see not how immateriality is infer'd from immortality, since there may be an incorruptible matter, such as that of the Heavens is. Which nevertheless is spoken rather to make way for some better thought, than that I hold it as my own.

The Sixth said, That there may be some *Medium* serving for the union between the Body and the Soul, beside the Animal, Vital, and Natural Spirits; to which *Medium*, the many wonderful effects which we are constrain'd to ascribe to Occult Qualities ought to be refer'd. For as they who know not that the Ring which Juglers make to skip upon a Table, according to the motion of their fingers, is fasten'd to them by the long Hair



of a Woman, attribute that Motion to the Devil: So they who cannot comprehend the subtilty of the *Medium*, uniting not only the Body with the Soul which informes it, but also the other Spirits with the Body which they agitate, find no proportion therein, and are constrain'd to let experience cross their reason. Now to understand the Nature of this uniting *Medium*, I conceive is as difficult as to give an account of the Sympathies and Antipathies of things.

II.  
Which is  
more power-  
full Love or  
Hatred.

Upon the Second Point, the First said, That *Empedocles* had reason to constitute *Love* and *Hatred* for the two Principles of Nature: which though *Aristotle* endeavours to confute, yet is he constrain'd to acknowledge the same thing, though disguis'd under other words. For when he saith, that two of his Principles are contraries and enemies, namely, *Form* and *Privation*; and nevertheless that they are united in one common Subject which is the *Matter*; what is it else but to confess that all things are made and compos'd by the means of *Love* and *Hatred*? They who own no other Principles but the Four Elements, are of the same opinion, when they say that all Mixt Bodies are made with a discording concord, and a concording discord. For as the Elements united together will never compose an Animal, unless they be reduc'd to a just proportion, and animated, by rebatement of some little of the vigor of their active qualities; so if there be no kind of War and Amity between them, if the Hot act not against the Humid, the Animal will never live: since Life is nothing but the action of Heat upon Humidity. However, Amity hath something more noble, and excites greater effects then Enmity. For the former is the cause of the Generation and Preservation of Mixt Bodies, and the latter of their dissolution and corruption. Now it is much more noble to give and preserve Being, then to destroy it. Whence God himself found such perfection in his Creation, and was so pleas'd with his Divine Work, that though it frequently deserves by its crimes to be annihilated, yet his Punishments have not hitherto proceeded so far. This is no less true in Spiritual and Intellectual Substances then in Natural. Gods Love hath more noble effects then his Hatred. For (to leave to Divines the consideration of that Love which had the power to draw the Second Person of the Trinity from Heaven, with that which produces the Third; as also to leave them to proclaim that God loves Good Actions, and that the effect of this Love is Eternal Bliss; that he hates Sins, and that the effects of this hatred are the punishments of Hell; that it is manifest that the glory of Paradise is much greater then of those Chastisements; since what ever penalties God inflicts upon Man for his mis-deeds, he renders Justice to him, and do's not reduce him into a state inferior to or against his Nature; but when he rewards with Eternal Glory, he exalts our Nature infinitely higher then it could aspire;) let us consider

Love



Love and Hatred in Men, and particularly as Passions, (according as the Question propounded seemes principally to be understood,) and no doubt Love will be found more violent then Hatred. To judge the better whereof, we must not consider them nakedly and simply, as Love is nothing else but an inclination towards Good, and Hatred an Aversion from Evil; nor yet as such Good or Evil is present: For in these two manners they have no violence, nor any Motions, since according to the receiv'd Maxime; When the End is present, all Motion and Action ceaseth. But to know which of these two passions acts with most force and violence for the attaining of its end, we must contemplate them with all the train and attendance of the other Passions which accompany them; not as the one is an inclination to Good, and the other an Aversion from Evil, present; For in this sense, no doubt, a Present Evil which causeth Grief, is more sensible and violent then a Present Good which causeth Pleasure; but as the one is a Desire of the Absent Good which is propos'd, and the other a Flight from an Absent Evil which is fear'd; I conceive the Passions excited by an Absent Evil have no great violence, but rather partake of heaviness and stupidity, as Fear and Sadness; which render us rather unmoveable and insensible, then active and violent in our Motions. The Passions which lead towards an Absent Good are otherwise: For Hope, which is, by the testimony of *Aristotle*, a species of Love, contemnes and surmounts all difficulties which hinder its attaining to its Good.

Here one objecting, That Anger, which arises from Hatred and inward Grief hath more violent effects then Hope and the other Passions; It was answer'd, that Anger consists of a mixture of Love and Hatred; therefore *Homer* sayes, that to be angry is a thing more sweet then Honey. For Anger tends to Revenge, and ceaseth when we are reveng'd for the wrong we apprehend done to us. Now Revenge seemes a Good and delectable thing to the person that seeks it; and therefore all the great Ebullitions and Commotions observ'd in Anger ought to be referr'd to the Love and Desire of Revenge. Besides, the Motions which attend Hatred are Motions of Flight, as those which accompany Love are Motions of Pursuit; and Anger being rather a Pursuit and seeking of Revenge, then a Flight from any evil, it is more reasonably to be rank'd under Love then under Hatred. Again, we see amorous persons are more easily put into heat, then even those which are drawn up in battalia; and ready to kill one another. In fine, if Hatred and all the Passions attending it, have any force and violence, Love is the prime cause thereof; we hate no thing but because we love some thing, and that more or less, proportionably as we love. Wherefore the Philosophers who would introduce an Apathy, and banish all the Passions, should have done well rather to extinguish Love. For he who loves no thing, hates no thing; and when we have lost any thing, our sadness and resentment is proportionable



portionable to the Love we had for it. He that loves no thing, fears no thing; and if it be possible, that he do's not love his own life, he do's not fear death. It is not therefore to be inquir'd, which excites the greatest Commotions, Love or Hatred; since even those which Hatred excites proceed from Love.

The Third said, That the Acts or Motions of the *Appetite* are called *Passions*, because they make the Body *suffer*, and cause an alteration in the Heart and Pulse. Such as aim at Pleasure enervate the Motion of Contraction; because they dilate the Spirits, and augment that of *Dilatation*. Whereas, on the contrary, those which belong to *Sadneß* diminish the Motion of *Dilatation*, because they further that of *Contraction*. We may consider the Passions either *materially* or *formally*; the former consideration denotes the *Impression* which they make upon the Body; the latter, the relation to their Object. So Anger consider'd *materially* is defin'd, An Ebullition and Fervour of the Blood about the Heart; and *formally*, A Desire of Revenge. This being premiz'd, I affirm, That Hatred is much more powerful then Love; if we consider them *materially*, not as alone, but as leaders of a party, *viz.* Love with all the train of Passions that follow the same towards Good, and Hatred, with all its adherents, in reference to Evil. For either of them taken apart, and by it self, make very little impression and alteration in the Heart. Love is a bare acknowledgement of, and complacency in good, and goeth no further *as* Love. Hatred is nothing else but a bare rejection, disavowing, and aversion of Evil. In verification of which conception of the Nature of those Passions, it is evident that the Effects ascrib'd to Love, as Extasie, Languishing, are the Effects not of Love, but of Hope, weary and fainting through its own duration. Now these Passions being thus taken, Love causeth less alteration upon the Body then Hatred. For its highest pitch is *Delight*, which is *materially* an expansion of the Spirits of the Heart towards the parts of the whole Body; wherein appeareth rather a cessation from Action, then any violence. But Hatred which terminates in *Anger* makes a furious havock. It causeth the Blood to boyle about the Heart, and calls to its aid the same Passions that are subservient to Love, as Hope and Boldness, conceiving it a Good to be reveng'd on the present Evil. The Case is the same also, if they be consider'd according to their *formality*. For the Object of Love is a Good, not absolute but according to some consideration; seeing the good of an Animal is its preservation, to which that kind which is called Delectable Good, or the Good of Delight, is ordain'd as a means to the end. But the Object of Hatred is the Evil which destroyes an Absolute and Essential being of an Animal. For which reason it moves more powerfully then Good.

The Fourth said, That for the better judging of the Question, we must suppose that these two Passions are two Agents, which tend each to their different End. For the end of Love is a good Being;



Being; That of Hatred, which repels what destroys our Being, is the preservation of Being simply. Now Being is much more perfect *naturally* then better being, though *morally* it is not so perfect: and the preservation of Being is of the same dignity with Being. On the other side, it is true that Love is the cause of Hatred, and that we hate nothing but because we love. Yet it doth not follow that Hatred is not more powerful then Love; seeing many times the Daughter is more strong and fair then the Mother. Now if they are brutish Passions, they must be measur'd by the standard of Brutes. But we see a Dog leave his Meat to follow a Beast, against which he hath a natural animosity. And Antipathies are more powerful then Sympathies; for the former kill, and the latter never give life. Nevertheless, sometimes Love prevails over Hatred. For a Man that loves the Daughter passionately, and hates the Father as much, will not cease to do good to the Father for the Daughters sake.

The shortness of the dayes, and the enlargements upon this Subject, having in this and some of the former Conferences, left no room for Inventions; every one was entreated to prepare himself for the future; and these two Points were chosen for the next day seven-night.

## CONFERENCE XVII.

- I. *Of the several fashions of wearing Mourning, and why Black is us'd to that purpose rather than any other colour.* II. *Why people are pleas'd with Musick.*

THE First said, That the greatest part of Man-kind, excepting some *Barbarians*, lamented the death of their friends, and express'd their sadness by external Mourning, which is nothing but the change of Habit. Now they are observ'd to be of six sorts. The Violet is for Princes. The weeds of Virgins are white in reference to purity. Sky-colour is in use with the people of *Syria*, *Cappadocia* and *Armenia*, to denote the place which they wish to the dead, namely, Heaven. The Yellow, or *Feuille-morte*, among those of *Ægypt*, to shew (say they) that as Herbs being faded become yellow; so Death is the end of Humane Hope. The Grey is worne by the *Æthiopians*, because it denotes the colour of the Earth, which receives the dead, and into which they return. But the most common, and us'd throughout all *Europe*, is Black, which also was always worne by the *Romans* when they went into Mourning, except during sixty years that they wore white. The wearing of Mourning continu'd ten moneths at *Rome*; the *Athenians* wore it but one moneth;

I.  
Of the several fashions of wearing Mourning, and why Black is us'd to that purpose rather than any other colour.



moneth; the *Spartans* no more but eleven dayes. The reason why they have all chosen Black for denoting Sadness, is, because Black is the privation of White, and proceedeth from the defect of Light; so Death is the privation of Life and Light. Possibly too, the reason why the Cypress Tree was esteem'd a Funeral Tree, was, because the leaves were of a dark Green, and the Nutts tincture Black, and being cut it never puts forth again; as also Beans were, in regard of the blackness which appears in them and their flowers.

The Second said, That Experience shews us sufficiently that the Black colour doth not onely put us in Mind of our griefs and sadnesses pass'd, but also is apt excite new. This is known to the Senses, and unknown to Reason, by a certain Divine Appointment, which hath caus'd that what is manifest to the one, is hidden to the other. As appears, for that nothing is so natural to the Sense of Seeing as Light and Colours. But yet there is nothing in which our Mind sooner finds its weakness, then in the enquiry into the Nature and properties of Colours and Light. Now there are two sorts of blackness, the one Internal, when the Soul turning it self towards the Images, upon report of which a judgement is made, if that Image is Black and deform'd, the Soul must conceive that the Objects represented by it, are so also, and thence ariseth horror and sadness; the other external, for the explicating of which, I must crave leave to deflect a little from the ordinary opinion touching the Nature of Colours. I affirm, that Colour and Light are one and the same thing, and differ onely in regard of the Subject; so that the lustre of a simple Body is Light, but the lustre of a mixt Body is call'd Colour. By which account, Light is the Colour of a simple Body, and Colour is the Light of a mixt Body. Whence Mixts approaching nearest to the simplicity of the Element predominant in them, are all Luminous; as precious stones, which are a simple Earth, and without mixture of other Element; and rotten Wood, which having lost the little Air and Fire it had, its humidity also being absorb'd by the putrefaction, and there remaining nothing almost but Earth, you see how it keeps its splendour amidst the darkness of the night. And this, in my conceit, is the meaning of what *Moses* saith, when he saith, that God created the Light before the Sun. For God having created the Elements in their natural purity, they were sometimes in that state before mixture; the Earth appeared not, but the Water cover'd its whole Surface. Every Element was in its own place, and the purity of its Nature: for which reason they had then their first Colour, which is splendour. But as soon as God had mingled them for the forming of Mixts, their Light became clouded and chang'd into Colour. And hence it was necessary to form a Sun in Heaven, far from all sort of mixture and composition; to the end he might alwayes preserve his Light, and enlighten the world therewith. The Fire preserves  
it



it self the most of all in its purity, by reason of its great activity which consumes what ever approaches near it. The other Elements would do so too, if they could preserve themselves in their purity as well as the Fire. But because they would be unprofitable should they remain such, it is necessary that they be mingled one with another, as well to serve for the production of Compounds, as for their Aliment, and several uses. Hence their Light becomes chang'd into Colour, which is nothing else but a Light extinguish'd more or less; and, accordingly, we see some Colours more luminous then others. The White is still wholly luminous, the Red wholly resplendent, the Green less, and the Brown begins to grow dark. Lastly, the Black is nothing but Light wholly extinct, and a kind of darkness, and consequently hath nothing of reality, but is a pure Privation which our Eyes perceive not. As our Ear discerneth or perceiveth not silence, but onely by not hearing any sound; so neither doth the Sight behold Black and darkness, but when it sees neither Colour nor Light. So that to hear Silence, and see darkness, is (to speak properly) a vain attempt of the Soul, which would fain exert its action of seeing and hearing, and cannot. Hence ariseth the sadness and terror which a deep silence, and the sight of extreme blackness and darkness excites in the Soul. For the Soul knows well, that Life is nothing else but Exercise of its Faculties, of which as soon as any thing is depriv'd, there remains nothing to be expected but death. She would fain exert her action and cannot; she distinguishes not whether it be through default of the Object, or whether her Faculty be lost, but she finds a privation of her actions, and represents to her self to be in the state of Death; whence ariseth Sadness and Fear. For as our Soul dreadeth nothing so much as Death, so the least suspicion, the least sign and umbrage of Death, is apt to put her into great dejection. And this makes way for the Second Reason, why the Soul becomes sad at the sight of a black Colour, namely, because it never appears in the Body, but Death is at hand. For this Colour is produc'd by the mortification and extinction of the Spirits, as a Gangrene, which is either caus'd by Adustion, (whereby Coals become black) or by extreme coldness; thus Old Men are of a leaden Colour tending to blackness. Now the excess of heat and coldness is equally contrary to Life. Wherefore as often as the Soul perceives blackness, either in her own Body or in another, she remembers the *Qualities* which produc'd it, and are contrary to Life which she loves; hence ariseth sadness. And hence also it is that we naturally love a Countenance well proportion'd with an agreeable Colour, wherein there is found a redness mingled with whiteness, bright and lively with Spirits; which is nothing else but an effect of the Love which our Soul bears to Life. For knowing this to be the Colour of Health, it affects the same even in another, as, on the other side, it abhorreth Death. Look upon a living Body, it is full of



brightness ; but a dead one is gloomy and dismal ; and at the instant that the Soul parts from the Body, a dark shade seems as it were to veil the Countenance. Now that the Soul may understand, it must become like to its Object. Whence *Aristotle* said, that the *Intellect* is *potentially* all things, forasmuch as it can form it self into as many shapes as there are Objects. So then, it will perceive blackness, it must become conformable to Black, which it cannot be without great resentment of grief and sadness ; since its natural Colour is its brightness ; and to deprive the Soul of brightness and splendor is to deprive it of Life.

II.  
Why Men  
love Musick.

Upon the Second Point the First said, That if Musick be not natural to the Heavens, considering the regularity of their Motions, which the custome of alwayes hearing hinders us from perceiving ; yet it is so to Man, since he takes such Pleasure therein, that Nurses quiet the frowardness of their Children in the Cradle by their Songs ; the Devotion of grown persons is increased by singing of Psalmes ; the Pipe and the Drum animate the Souldier to War, and even Horses become more courageous by the sound of the Trumpet ; Not to mention *David's* Harp, which drove away the evil Spirit from *Saul*, nor the cure which Hoboys effect in those that are stung with the *Tarantula*, causing them to dance till they sweat, by which means they are cur'd of what otherwise would be mortal. All which seemes more to be admir'd then explicated.

The Second said, That the Solution of the present Question depends upon this other ; namely, why certain Objects excite Pleasure, and others Grief ? The truth is, Nature hath joyn'd Grief with Hurtful Objects, and Pleasure with profitable. For otherwise having plac'd Living Creatures amidst Life and Death, it might have hapned that through want of knowledge, or else through intemperance, some Creature might neglect the things which are profitable to it, or made use of such as are hurtfull. It is not to be fear'd that an Ox will eat Worm-wood, or that an Animal will not pluck its leg out of the fire : For Pain admonisheth both the one and the other to abstain from those Objects, as on the other side Pleasure attracts us to those which preserve our Nature. This Pleasure is not onely in the Object as it is suitable to our Nature, but also in the Action it self. As it is a very sweet thing to live, so it is a great pleasure to exercise the Actions of life, more or less, according as the same are noble or necessary. Whence it is that Nature hath placed more Pleasure in the Action which tends to preserving the species of Men, then in that which preserves every individual in particular, and yet more in this latter, then in that of Seeing, Tasting, and the rest ; because that which regards the preservation of the individual, namely, Eating and Drinking, is considerable in reference to Life and Being which it preserves ; but the rest are onely for well-being. But in the Sense of Hearing there is not observ'd  
any



any Pleasure or Pain arriving by reason of the Object; because in Hearing, as well as in Seeing, the Objects act onely *intentionally* not *really* and *corruptibly*. Now Pain and Pleasure are not excited on the part of the Objects, but by *real* Actions, which cause alteration in their subject. But the Hearing is capable thereof, because it is a Natural Action, and every Natural Action is perform'd with Pleasure. Whence then cometh the Pain which our Ear receiveth with the sound? It must be observ'd that the Sense of Touching is diffus'd through all the Body, and every sensible part admits Pain, which is an Accident of Touching. Upon which account the Ear is endew'd with Two Senses; it receives not onely sounds, but the Tactile qualities. Sounds of themselves excite neither Pain nor Pleasure; but if together with sound the Air enters into the Organ, and strike it too vehemently, or stretches the Membrane more then its Nature is able to bear, Pain is excited in the Ear, not as it is the Instrument of Hearing, but as it is endew'd with the Sense of Touching. Moreover, Pain may be excited in the Sense of Hearing, another way. For the understanding whereof, it is to be noted, that it is not sufficient that the word of him that speaks be formed and articulated in his Mouth by the help of the Teeth and the Tongue; but the Ear must form it anew that you may hear it. For which end it is contriv'd in form of a Snail-shell, at the bottome whereof is plac'd a Drum, an Anvil, and a Hammer, for the formation of sounds anew. Now as we see the Organs which form words one after another, are troubled and discompos'd when they are to form certain sounds which have any Cacophonia or uncouth sound amongst them; as when I say, *il alla à Alençon*, I feel a certain unaptness in my Organs of speech; and the reason of this unaptness is, because the sequel or coherence of those sounds together, doth not well sute with the manner of the Organs operation; in regard it is natural to shut the Mouth after wide opening it; as we do in the pronuntiation of A. Now if another A must be pronounc'd immediately after, there is need of more force, which is troublesome, or else time must be allow'd between both, to shut the Mouth without speaking a word; which is also tedious to the Organ of speech, which hastens as much as he can to pronounce the words intended. So when the Ear comes to form the sounds anew, (as I said it doth) if two or more happen together, which require to be formed at once, as they do which have the same tone, or which gives not the Organ leisure to rest from one end to the other, it resents the same unaptness and inconvenience. Hence certain *Concords* in Musick please the Ear, and others displease it. This is seen ordinarily, that it is displeasing to the Ear to form many sounds at a time, as when two persons speak together; or if it happen that the two sounds presented together to be formed are wholly opposite one to the other, as one grave, and the other sharp; the Organ cannot form them both at once, because



they require two different wayes of operation, to which the Ear cannot attend at the same time. For it operates otherwise in forming a sharp sound then a grave, and they both strike the Organ and rend, it each after its own mode. Whereby it is constrain'd to form them ; but as it is by force, so it is not without Pain. But when those two sounds, the grave and the sharp, are united in one proportion, so that the sharp serves as it were for salt to the other, and they are blended together ; this conjunction makes them consider'd but as one sound, which the Ear finds very agreeable, because it formes the same not onely without difficulty, but also with Pleasure. Hence the good Concord of Musick delights our Ears so much.

The Third said, We have suffer'd under the Tyranny of the *Peripateticks* too long, whereas the other Philosophers afford us excellent reasons. *Plato* and *Pythagoras* will have all things to be Number, or at least a participation and similitude of Numbers. *Aristotle* agrees too, that Musick is Number. Now the perfect Number, according to *Pythagoras*, is that of *Ten* ; seeing all other Numbers are but repetitions of the first *Ten*. Of these Numbers the first pair is Female and imperfect ; and so is a *second* in Musick. *Three* is the first Male, and the first degree of perfection ; hence a *Third* is agreeable to the Ear. The *Fourth* is so likewise, because it makes up the *Ten*. Add 1, 2, 3, and 4, and you have the grand Number of *Ten*, the Father of all others. Also a *Fifth* pleases the Ear wonderfully, because it is an Abridgement of the grand Number, and the marriage of the Male and the first Female. The other Numbers are useless, except the *Eighth*, because Musicians call it Identity, or Unity, which is a Divine Number, or rather no Number ; nor is the *Eighth* as delightful as it is, accounted by Musicians amongst their Concords.

The Fourth said, That the Reason why some Notes are agreeable, and other unpleasing, in Musick, is, because the former move the Faculty of the Soul after a manner suitable to it, and the latter do not ; as we see an Example of it in Ballads and Dances, where when the Violin or Minstrel hath sounded a braul which goes well to the cadence, not onely the Members of the Dancers comply therewith and follow the same readily, but also the Souls seemes to dance with the Bodies ; so great Sympathy have they with that Harmony. But if, on the contrary, the power of the Soul be otherwise agitated at the same time, that Harmony, how regular soever, will displease us. Witness the displeasure taken at cheerful aires by those who are in Mourning, to whom doleful notes better agree, which, on the other side, are disagreeable to such as are merrily dispos'd. Add hereunto the humour of the Phancy, which hath an aversion to some sounds, as well as to some smells. For as for *Discords*, janglings, and other troublesome sounds, no other cause of their general inacceptableness ought to be sought, then that disproportion and deformity which is found in things Natural  
and



and Artificial, the former being more intollerable then the latter ; because the Eye is not struck with the visible species, as the Ear is with sound, and can turn away from the Object which displeaseth it, which the Ear cannot, and is clos'd with much more difficulty.

CONFERENCE XVIII.

I. *Of the Original of Winds.* II. *Why none are contented with their Condition.*

There is more resemblance then one would imagine between these two poynts, The Wind of the Air, and that of Ambition, to which the discontent of Men with their condition is commonly ascribed. As for the First, Some have held that all Wind, even that which blows upon the Sea, comes from the Earth ; and that the first conjecture which was entertain'd of the Region of the *West Indies*, was taken from the Wind perceiv'd to come from that quarter. But the History of *Christopher Columbus*, attributing the discovery to Chance thereof, cannot consist with that opinion. There is no *Meteor* whose effects have more of *Miracle*, which is defin'd, *An Effect whereof no Natural Cause is seen.* For even the *Lightning* is seen by the brightness of the fire which accompanies it. But the effects of this aim at the highest things, which it overthrows, and you neither see the Agent nor understand it. Yet the Sagacity of Humane Wit is admirable. Sins have serv'd to clear Cases of Conscience. Arsenick, Sublimate, and other poysons, are converted by Physick into Cauteries and other profitable remedies. The Civil Law hath by occasion of evil manners receiv'd addition of good Laws. The Winds, which drown Ships, are so managed by the Art of Navigation (which divides them first into four principal, North, East, South, West, and then into eight, by the addition of four half points, and hath at length subdivided them into 32.) that by their help Men sail upon the main Sea, and provide foreign remedies for Physick ; Sugar and spices for Kitchens, and employments for many other professions.

The Second said, That though many causes may agitate the Air, yet all of them are not sufficient to raise a Wind ; but the Air must be agitated by some Fume which is raised either from the Earth, and is called an *Exhalation*, or from the Water, and is called a Vapour ; either of which partakes of the Nature of the Element from whence it proceeds. A Vapour is moist, an Exhalation dry. An extrinsecal Heat which predominates in them gives them all their motions, and makes them mount on high. And because it is the property of Heat alwayes to move and act, therefore these Fumes are so long in action as the Heat lasts,

I.  
*Of the Original of Winds*



lasts. They arise in company together, and are carry'd upwards, but are presently separated. For the moisture of the Vapour quencheth the Heat which animated it; so that the sole absence of the Sun, or the occurse of the least Cold, depriving the Vapour of the little Heat which was left in it, and made it still ascend upwards, it becomes more condens'd, and falls down in Rain. But an *Exhalation* hath a greater degree of Heat, which is render'd more active by the driness and tenacity of the matter. Therefore it ascends till it meets with the Air of the *Middle Region*, which is thick and congeal'd, by which being hinder'd to pass further, it seeks a passage on one side or the other. Many times when it strives to rise higher, it becomes engag'd among Clouds which inclose it on all sides. Being thus inclos'd and straitned, it becomes united together, and thereupon being inflam'd, breaks the Clouds, and causes *Thunder*; or if it find less resistance towards the Earth, it descends with violence to the place from whence it arose, and makes *Whirl-winds*. But if such *Exhalation* have not time enough to mount as far as the *Middle Region* (as it happens most frequently) but as soon as it is drawn up be hinder'd and inclos'd by the *Vapour* turn'd into thick and cold Air in the *Lower Region* of the Air, then Winds are produc'd in this manner. This *Exhalation* being unable to mount upwards, because the whole Region is full of thick Air which resists it, it must go either on one side or other; wherefore it tends that way where it meets least resistance. And whereas there are certain seasons wherein the Air is sometimes less thick towards the *South*; others, wherein it is so towards the *North*, and the other quarters of Heaven; thence it is that the Winds blow there most usually. Moreover, the reason why the Wind hath a kind of whistling, is, because the *Exhalation* clasheth with violence against that thick Air. Hence also it is, that Winds are more ordinary in the Night, and about Evening; because in those times the *Vapour* looseth its Heat through the Sun's absence; and so being become a thick Air, better incloseth the *Exhalation*, and resisteth the same with more force. But as the Air which issueth out of our Lungs is hot; yet if it be sent forth with some little violence it becometh cold: So though the *Exhalation* which causeth Wind be never without Heat, yet we never feel the Wind hot. Not that the Air loseth its Heat by motion, as *Cardan* conceiveth: (For, on the contrary, all things become Hot by motion; the Lead upon Arrows is melted, and the Wood fired, Water becomes thinner and hotter.) But the cause thereof is, for that a strong Wind or Hot Air driven violently draws all the neighbouring Air after it, which Air is Cold, and we feel the coldness thereof. Whence all strong Winds are alwayes cold.

The Third said, We ought not to seek other causes of Natural Winds then those we find in Artificial Wind; because Art imitates Nature. Artificial Winds (such as those of our Bel-  
lows,



lows, the most common instruments thereof, are caus'd by a compression of the Air made by two more solid Bodies, then themselves, which thrust the same thorow a narrower place then that of their residence. For the Bellows having suck'd in a great quantity of Air, when its two sides draw together they drive out the same again with violence; And this is that which they call Wind. In like manner, I conceive, two or more Clouds falling upon, and pressing one another impetuously, drive away the Air which is between them. So we blow with our Mouths, by pressing the Air inclos'd in the Palate, and shutting the Lips to streighten its eruption. Hereunto they agree who define Wind to be Air stirr'd, mov'd or agitated. But if it be objected that the Clouds are not solid enough to make such a compression, the contrary appears by the noise they make in Thunder-claps.

The Fourth alledg'd, That Winds are produc'd in the World as they are in Man; namely, by a Heat sufficient to elevate, but too weak to dissipate Exhalations; whether that Heat proceedeth from Cœlestial Bodies, or from Subterranean Fires. Wherefore as Hot Medicaments dissipate flatuosities, so the great Heat of the Sun dissipates Winds.

The Fifth added, It is hard to determine the Original of Winds, after what our Lord hath said thereof, *That we know not whence they come, nor whither they go*, and what David affirmeth, *That the Lord draweth them out of his Treasures*. Nevertheless, I conceive, that different causes ought to be assign'd of them according to their different kinds. For although Winds borrow the qualities of the places through which they pass; (whence the Southern and Eastern are moist and contagious, because of the great quantity of Vapours wherewith they are laden by coming over the Mediterranean Sea and the Ocean) yet some Winds are of their own Nature Hot and Dry, making the Air pure and serene; being caus'd by an Exhalation of the like qualities. Others are so moist that they darken the Air, because they are produc'd of Vapours. Some places situated near Mountains and Rivers, have particular Winds. But as for those which blow at certain Periods, either every year, or every second year, or every fourth year, (as one that blows in *Provence*) I refer them to the Conjunction of certain Plants which reign at that time.

The Sixth said, That Air hath a natural motion of its own, as the Heavens have, otherwise it would corrupt; but meeting some streights, and finding it self pen'd up, it rallies and reunites its forces to get forth, (as it doth) with violence, and set it self at Liberty; And this with so much the more vehemence as the places through which it passeth are streighter. Whence it is that we alwayes perceive a Wind near a Door or Window half open (or the mouth of a Cave) which ceaseth when they are set wide open.

The



The Seventh continu'd, That which is most difficult to conceive, in reference to the Wind, is its violence, which I hold to proceed from the Rarefaction of a matter formerly condens'd, and from the opposition of a contrary. For the place of the Generation of Wind being either the Cavernes of the Earth, or the Clouds, the vaporous matter becoming rarifi'd so suddenly that it cannot find room enough to lodge in, breaks forth impetuously; as we see the Bullet is by the same reason violently driven forth by the Air enflamed in the Cannon. Some think that Winds arise also from the Sea, because a Wave is alwayes seen, upon the changing of the Wind, to rise on that side from whence it is next to blow.

The Eighth said, That their motion is a direct line, because it is the shortest way, but not from below upwards; by reason of the resistance they meet with in the coldness and thickness of the Middle Region of the Air, whence the same thing happens to them that doth to smoak or flame; which arriving at a ceiling or vault, is constrain'd by the resistance it finds thereby to decline on one side. Also their violence is increas'd by the adjunction of new Exhalations, as Rivers augment theirs by the access of new streams.

II.  
Why none are  
contented  
with their  
own condi-  
tion.

Upon the Second Point it was said, That since the inferior World follows the course of the superior and Cœlestial, it is not to be wonder'd if the latter being in continual motion and agitation; the former, whereof Man makes the noblest part, cannot be at rest. For the Starrs, according to their several Positions, Aspects, or Conjunctions, move and carry us to desire sometimes one thing, sometimes another. The Ambition and Ignorance of Man are of the party too. The former makes him alwayes desire to have the advantage above others, to pursue Honours and Dignities, and to think that to acknowledge a greater then himself, is to own fetters and servility. The latter represents things to him otherwise then they are, and so causes him to desire them the more, by how much he less understands their imperfections. Whence many times, by changing, he becomes in as ill a case as *Æsop's* Ass, who was never contented with his condition. But the true Cause, in my opinion, is, because we cannot find in this World a supreme temporal Good, whereunto a concurrence of all outward and inward goods is requisite; and were a Man possess'd thereof, yet he could have no assurance that he shall enjoy it to the end of his Life; whence, living in fear of losing it, we should be prone to desire something that might confirm it. The Dignity of the Soul furnisheth me with another reason of our discontentment. For she being deriv'd from Heaven, and knowing that this is not her abiding City, she may taste of terrene things, but findeth them not season'd to her gust, as knowing that frail and mortal things are not worthy of her, nor suitable to her eternity; And as a sick person that

turns



turns himself first on one side, then on the other, to take rest; so the Soul finds her repose in motion. And as morsels swallow'd down have no more favour, so the present goods which our Soul possesseth give her no pleasure; but like a Hunter she quits the game which she hath taken, to pursue another.

The Second said, Though, by a wise Providence of Nature, every one loves his own condition as much or more than another doth, yet there being alwayes some evil mix'd with, and adhering to, the most happy state in the world, that evil is the cause that we are never contented therewith. I add further, If it were possible to heap all the goods of the world into one condition, and all kind of evils were banish'd from the same; yet could it not fill the Appetite of our Soul, which being capable of an infinite Good, if she receive any thing below infinite she is not fill'd nor contented therewith. Nevertheless, this dissatisfaction doth not proceed from the infirmity and ignorance of the Humane Soul, but rather from her great perfection and knowledge, whereby she judging all the goods of the world less than her self, the goods intermingled with miseries serve her for so many admonitions that she ought not to stay there, but aspire to other goods more pure and solid. Besides these, I have two natural reasons thereof. First, Every Good being of it self desirable, every one in particular may desire all the goods which all Men together possess: Yet it is not possible for him to obtain them; wherefore every one may desire more than he can possess: Whence there must alwayes be frustrated desires and discontentments. Secondly, The Desires of Men cannot be contented but by giving them the enjoyment of what they desire. Now they cannot be dealt withall but as a bad Physitian doth with his Patients, in whom for one disease that he cures he causeth three more dangerous. For satisfie one Desire, and you raise many others. The poor hungry person asketh onely Bread; give it him, and then he is thirsty; and when he is provided for the present, he is solicitous for the future. If he hath money, he is troubled both how to keep it, and how to spend it: Which caus'd *Solomon* after he had deny'd his Soul nothing that it desir'd to pronounce, That *All is vanity and vexation of Spirit*.

The Third conceiv'd, That the Cause of this Dissatisfaction is, for that the conditions of others seem more suitable to us, and for that our Election dependeth on the *Imagination*, which incessantly proposeth new Objects to the Soul, which she beholding afar off, esteemes highly; afterwards considering them nearer, sees (as the Fable saith) that what she accounted a treasure is but a bottle of Hay.

The Fourth said, That because every thing which we possess gives us some ground of disgust, and we do not yet perceive the inconvenience of the thing we desire; therefore we are weary of the present, and hope to find less in the future: Whence we despise the one, and desire the other.

Q

The



The Fifth added, That Man being compos'd of two parts, Body and Soul, which love change, it is necessary that he love it too. Choose the best posture, and the best food you will, it will weary you in a little time. Let the most Eloquent Orator entertain you with the most excellent Subject, suppose God himself, you will count his Sermon too long if it exceed two hours, or perhaps less. Is it a wonder then, if the Whole be of the same Nature with the Parts?

The Sixth attributed the Cause of this Discontent to the comparison which every one makes of his own State with that of others. For as a Man of middle stature seems low near a Giant; so a Man of moderate fortune, comparing his own with the greater of another, becomes discontented therewith. Wherefore as long as there are different conditions, they of the lowest will always endeavour to rise to the greatest; and for the taking away of this Displeasure, *Lycurgus's* Law must be introduc'd, who made all the people of *Sparta* of equal condition. If it be reply'd, that nevertheless they of the highest condition will be contented; I answer, that our Mind being infinite, will rather fancy to it self *Epicurus's* plurality of worlds, as *Alexander* did, then be contented with the possession of a single one, and so 'twill be sufficient to discontent us, not that there is, but that there may be, some more contented then our selves.

The Seventh said, That the Cause hereof is the desire of attaining perfection, which in Bodies is *Light*, (whence they are always chang'd till they become transparent as Glass) and in Spirits, their *satisfaction*, which is impossible. For Man having two principles of his Actions, which alone are capable of being contented, namely, the *Understanding* and the *Will*; he cannot satiate either of them. One truth known makes him desire another. The sign of a moderate Mind is, to be contented with it self; whereas that of a great Mind is, to have always an insatiable appetite of knowing; Whence proceedeth this? It is for that it knows that God created every thing in the world for it, and that it cannot make use thereof unless it have an exact and particular knowledge of the virtues and properties of all things. It knows also, that it self was created for God, and the knowledge of the Creatures is nothing but a means to guide it to that of God. So that if it take those means which lead it to the end for the end it self, it deceives it self and finds not the contentment which it seeks, and will never find the same till it be united to its First Principle, which is God, who alone can content the *Understanding*. His *Will* is also hard to be satisf'd. The more goods it hath, the more it desires. It can love nothing but what is perfect: It finds nothing absolutely perfect but goodness it self. For the Light and knowledge wherewith the Understanding supplieth it, discover to it so many imperfections and impurities in the particular goods it possesseth, that it distasts and despises them, as unworthy to have entertainment in it.

Where-



Wherefore it is not to be wonder'd, if Man can never be contented in this world, since he cannot attain his utmost End in it, either for Body or Soul.

CONFERENCE XIX.

I. *Of the Flowing and Ebbing of the Sea.*

II. *Of the Point of Honour.*

THE First said, That if there be any other cause of this Flux then the heaping together of the Waters from the beginning, under the *Æquinoctial*, by Gods Command, whence they descend again by their natural gravity, and are again driven thither by the obedience which they owe to that Command; (which is so evident, that they who sail under the *Æquator*, perceive them selves lifted up so high by the currents that are usually there, that they are many times terrifi'd thereat) there is none more probable then the Moon, which hath dominon over all moist Bodies, and augments or diminishes this Flux according as she is in the increase or the wane.

I.  
*Of the Flux  
of the Sea.*

The Second said, That the Moon indeed makes the Flux and Reflux of the Sea greater or less, yea, she governes and rules it; because being at the Full she causeth a *Rarefaction* of its Waters. But this doth not argue that she is the Efficient Cause of the said Flux. The Sea rises at the shore, when the Moon riseth in the Heaven, and retires again when the Moon is going down, their motions are indeed correspondent one to the other; yet I know not how that of the Moon is cause of that of the Sea: For if it were, then, when the Moon is longest above our Horizon, as in long dayes, the ebbing and flowing would be greatest; but it is equal and regular, as well when the Moon is below the Horizon as above it. And why also doth not she move the other Seas, and all sorts of Waters, as well as the Ocean?

The Third said, That there are two sorts of Water in the Sea, one terrene, thick, and viscous, which contains the Salt; the other thin, sweet, and vaporous, such as that which *Aristotle* saith enters through the Pores of a vessel of wax, exactly stop'd and plung'd to the bottome of the Sea. This thin Water being heated is rarifi'd and turn'd into vapours, which consequently require more room then before. They seek for it, but being restrain'd and inclos'd in the thick and viscous Water can find no issue; and therefore make the Water of the Sea to swell and rise, till that Exhalation be disengag'd from those thick Waters, and then the Sea returnes to its natural state, by falling flat, and becoming level. This is abundantly confirm'd by the Tydes; which are alwayes greater in *March* and *August*, then at other seasons; because at that time more abundance of vapours is



drawn up. But why have not Lakes also an Ebbing and Flowing? Because their Water being more thin lets pass those vapours which the Sun hath stirr'd; and so not being hinder'd from going away, as those of the Sea are, they do not make the Water rise and swell. So Heat having subtiliz'd and converted into vapours the most tenuous parts of the Milk upon the Fire, the thicker parts of the same coming to enclose them, are the cause that it swells and rises up: But when it is remov'd from the fire, or its vapours have gotten passage by agitation, it takes up no more room then it did at first. But it is not so with Water plac'd upon the Fire, the rarity of its Body giving free issue to the vapours which the Heat excites in it. The Jewish Sea is bituminous, and therefore no more inflated then pitch; possibly because the parts thereof being Homogeneous, cannot be subtiliz'd apart. For as for the Mediterranean Seas, having no Flux and Reflux, I conceive it is hindred by another motion, from North to South; because the Septentrional parts being higher then the Austral, all Waters by their natural gravity tend that way.

The Fourth said, I acknowledge, with *Aristotle*, that 'tis partly the Sun that causes the Flux and Reflux of the Sea; because 'tis he that raises most of the Exhalations and Winds, which beating upon the Sea make it swell and so cause the Flux; and soon after failing, the Sea falls again, which is the Reflux. Nevertheless, because this cause is not sufficient, and cannot be apply'd to all kinds of Flux and Reflux, which we see differ almost in all Seas; I add another thereunto, *Subterranean Fires*, which sending forth continually abundance of Exhalations or subtile Spirits, and these Spirits seeking issue, drive the Water of the Sea which they meet, till it overflows; and thus it continues till being deliver'd from those Spirits it falls back into its channel, till it be agitated anew by other Exhalations, which successively follow one another; and that more or less, according to the greater or lesser quantity of those Spirits. The Tydes which happen every two hours are an evidence of great quantity; those which happen every four hours of less, and those which happen every six, of least of all. So there is made in our Bodies a Flux and Reflux of Spirits by the motion of Reciprocation, call'd the *Pulse*, consisting of a Diastole and a Systole, (or Dilatation and Contraction) caus'd by the Vital Faculty of the Heart, the Fountain of Heat. Moreover, as the Pulse is ordinarily perceiv'd better in the Arms, and other extreme parts, then in the rest of the Body; So the Flux and Reflux is more evident at the shores then in the main Sea. Therefore *Aristotle* proposing the Question why, if some solid Body, as an Anchor, be cast into the Sea when it swells, it instantly becomes calm, answers; That the solid Body cast into the Sea makes a separation in the surface thereof; and thereby gives passage to the Spirits which were the cause of that Commotion. Now if it be demanded, Why such motion is not so manifest in the Mediterranean



anean Sea, and some others, as in the Ocean, it is answer'd, that the reasons thereof are: 1. Because Nature having given sluices to the Mediterranean higher then to the Ocean, it hath not room wherein to extend it self so commodiously. 2. Because the Subterranean Fires, being united and continually vented forth by the Out-lets, which they have in *Ætna*, *Vesuvius*, and other Mountains within or near that Sea, there remains less then is needful to make a rising of the Waters.

The Fifth said, I conceive there is as little cause and reason to be sought of the Flux and Reflux of the Sea, as of all other motions proceeding from Forms *informing* or *assisting* the Bodies which they move. As it would be impertinent to ask what is the cause of the motion of a Horse, seeing the most ignorant confess that it is from his Soul, which is his Form: So there is more likelihood of truth in attributing the motion of the Sea to its Form then to any other thing. Yet because they who assign a Soul to the World and all its parts cannot make out such a proportion therein as is requisite to the parts of an Animal; I think more fit to affirm, that the Sea hath a Form and Intelligence *assisting* to it, which was assign'd to it by God from the beginning, to move it in the same manner as the Intelligences, according to *Aristotle*, are assistant to the Cœlestial Orbes, and continue their motion.

It was said, upon the Second Point, That since Contraries give light to one another, we may better understand what Honour is, by considering the Nature of Dishonour. For where ever there is Blame, there is also Honour opposite to it. Now there is no Man that sees a vile action, (as amongst Souldiers, Murder, or Cowardice, Collusion, or Perfidiousness in Justice) but he blames the same, and judges the Author thereof worthy of Dishonour. On the contrary, a brave Exploit and a Courageous Action is esteemed by Enemies themselves: The incorruptible Integrity of a Judge is oftentimes commended by him that loses his Suit; and the Courageous Fidelity of an Advocate, in well defending his Client, receives Praise even from the Adversary; so odious is Vice; and so commendable is Virtue. Wherefore every one abhorring Blame and Dishonour, doth so vehemently hate the memory and reproach of any thing that may bring it upon him, that many imitate what the Fable telleth of *Jupiter*, who going to shake off the ordure which the Beetle had laid upon the skirt of his garment, by that means shook out the Eggs which the Eagle had laid in his lap; that is, by thinking to repel a small Blame, they incur a greater, and oftentimes with the prejudice of another: As it is manifest in the rage and wildness of Duels, when for the repelling of a small injury, a Man engages the life of a *second*, who usually becomes involv'd in the same destruction with himself. It is not my purpose to de-claim further here against that Madness; for the Folly of Men is

II.  
Of the Point  
of Honour.

come



come to such excess, that they who go most unwillingly to the field, considering that they are going possibly to destroy both their Bodies and their Souls, yet dare not seem to obey the injunctions and prohibitions against the same by the Laws both of God and Men. A brutishness worthy of Admiration; as it would be of Pity, were it not voluntary among those who value themselves above others. But to leave them to themselves, let us onely consider what a strange Power the Point of Honour hath, which is able to carry before it all the torrent of Arguments and Reasons which dissuade a furious Resolution. Now it is as various, as the Humours and Conditions of Men. Not that I think it imaginary; but as there are actions of themselves honest or dishonest, which are the real foundation of this Point of Honour; so it is of the same Nature. And although *Diogenes* accounted nothing dishonest (*i.e.* unbecoming) which is lawful; yet it cannot be believ'd by any but a *Diogenes*. So that the *Ingenuous* Youth, upon whose shoulder that Cynick laid a fitch of Bacon, and lead him about the City in that equipage, to accustome him to put off all shame, obey'd Reason and not his Caprichio, when he cast the same down and ran away. When the Executioner causeth a Criminal to make an *honourable amends*, (by which understand a most ignominious punishment inflicted upon an extreme Offender, who must go through the streets bare-foot and bare-headed, with a burning link in his hand, unto the seat of Justice, or some such publick place, and there confess his Offence, and ask forgiveness of the party he hath wrong'd) he many times endures no other evil but that of shame; and yet I would not blame him that should prefer a natural death before such a dishonour. It may be said that the Point of Honour reacheth not so far, but is onely an image and shadow, since words are but the images of things; and that a Man will fight a Duel when another hath reproach'd him for a fault, either of his own, or of some other for whom he is concern'd. But I answer, that Men fight oftner for actions and bad offices, then for words. And although they commonly reflect thus, what will people say of me, if I put up this? Yet the truth is, 'tis out of fear lest one contempt making way for another, might give occasion to effects not onely prejudicial to our Reputation, but also to our Fortune; which we know in these dayes depends upon our Reputation. A Captain known for a Coward will be cashier'd. A Souldier that doth not defend himself will be beaten. A Gentleman that doth not swagger when he is affronted, he will be abus'd not onely in his Honour, but also in his goods, by all his Neighbours. So that the Point of Honour is not so little real as it is imagin'd, since it hath an influence not onely upon a Mans Honour, but likewise upon his goods and life. In brief, we may consult those who deny the Point of Honour to be a real thing, by all this Honourable Assembly, and especially by the many excellent Wits, who  
are



are excited by Honour to appear therein, and acquire (what they may justly expect) the commendation which is due to their merits.

The Second said, That he found some difference between being an *Honest Man*, and a *Man of Honour*; for that, to be an Honest Man, it is requisite onely to possess the Honest Good (*Bonum Honestum*) which is Virtue: But to be a Man of Honour, besides that, the world must know that we possess the same, and give us the reputation of being virtuous. For 'tis stupidity, not to care what opinion Men have of us. Which caus'd the Wise-man to pronounce a Curse against those who neglect a good Fame; which is so natural, and so neerly alli'd to Virtue, that she seems not to have her utmost perfection when she is separated from it; and a Prudent Man desires equally to be virtuous, and to be esteemed such: Now if Honour consist in the possession of Virtue thus accompani'd, the Point of Honour will be the Point of Virtue, that is, the perfection thereof; or rather, Virtue most perfect, accompani'd with a compleat Reputation. This perfection, in my Judgement, is the War-like Virtue, call'd by the Greeks, by way of excellence, *The Virtue of Man*; and so esteemed by all the world, that no people, however otherwise barbarous, ever deny'd it the Title of Nobleness. It is not then to be wonder'd if Men of Courage think that the Point of Honour consists in preserving to themselves the Reputation of being Valiant, and endeavour by all means to make it appear to every one that they are endew'd with this War-like Virtue. Whence most Quarrels are occasion'd by Mens accusing one another of want of Courage, or other appurtenances of that Virtue.

The Third said, That which we call the Point of Honour, is nothing else, in my Judgement, but the desire of being esteem'd more honest persons then we are. For Man being the greatest dissembler of all Creatures, endeavours to make himself thought what he is not; because it being essential to him to desire *Good*, and his perverse Inclination not leading him to the *true*, therefore at least he desires the *apparent*. This is seen in all his actions, which aim onely at *three* kinds of *Good*; namely, the *Honest*, the *Profitable*, and the *Delightful*. Now of these three, onely the Honest is called *the Good of Man*; because the two latter usually corrupt him, the former preserves him. And nevertheless, many addict themselves to Pleasures, more run after Profit, but very few, comparatively, follow the Honest Good for its own sake, unless it be joyn'd with one of the other. In the mean time there is none but would perswade others that he is passionately in love with the latter, and not anxious for Honour. But, I conceive, we may know persons of Honour, by the little account they make of injuries which seem to tend to their disparagement, especially when they think the same do not belong unto them; and they who are worthy of Honour seek it least, and are not troubled



so much as others at the injury which any one thinks he doth them. So we see a Prince will not be so solicitous to employ his qualities in a publick act, as a Man of low condition newly exalted. An Honest Woman will not be so much troubled at an injury offer'd to her Honour, as she that is of an evil Life; because the former hath true Honour, which the latter hath not: As we see paltry Pedlars, that have all their shop in a pack hanging about their necks, make ten times more noise than the best whole-sale Trades-men, whose store-houses are fill'd with all sort of wares. And amongst all Nations, they who lie most, are most offended with the Lie. They who drink most, are most offended with the name of Drunkard. Wherefore since, according to *Aristotle*, 'tis the truth and not the number or quality of the honourers, which constitutes the true Honour, which they arrogate most in whom the substance is least found; it follows that what we call the Point of Honour is nothing but the appearance or shadow thereof.

The Fourth said, The Point of Honour is nothing but a Desire we have to make our selves esteem'd such as we are. Wherefore when a quality which belongs not to us is taken from us, we are far from being so much concern'd, as if it pertain'd to us. So a Gentleman who makes profession of Valour will be offended if he be called Poltron; but a Capuchin will not, knowing well that that Virtue is not necessary to Christian Perfection.

The Fifth said, That Honour, according to the common opinion, being the testimony which Men give us of our virtuous actions, the Point of Honour is that conceit which our Mind proposes and formes to it self of that opinion. Whence it follows that the Point of Honour thus taken, being an Abstract which our Mind draws from things, and not the things themselves, there is nothing of reality in it, but it is a pure Imagination, which alters according to the diversity of times, places, and persons. Such a thing was anciently honest (*i.e.* laudable and becomming) which is not so at present: Whereof the Modes and Customs of the times past, compar'd with those at this day, are a sufficient evidence. It was honourable at *Rome* to burn dead Bodies, and shameful to all others, (saving to the single family of the *Cornelii*) to bury them. At this day to inter them is honourable, but to burn them the most infamous of punishments. It was in *Lacedæmon* an honourable thing to steal dextrously; and now the reward of the craftiest Cut-purse is a Halter. One thing is honest, (*i.e.* seemly) in one age (as for Children to blush) which is dishonest (*i.e.* unseemly) in another, (as for old Men to do so.) Yea, one Man will sometimes construe a thing within the Point of Honour, which another will not. And we sometimes conceive our selves interess'd in one and the same thing, and sometimes not. Moreover, though the Point of Honour should not admit all these mutations, yet depending upon



upon the imagination of another, there can be nothing of reality in it. And therefore the true Point of Honour consists not in the opinion which others have of us, but in the exercise of honest and virtuous actions, whether acknowledg'd for such, or not; yea, though they be despis'd or punish'd, it is sufficient to render such actions honourable, that the Conscience alone judge of their goodness.

CONFERENCE XX.

I. *Of the Original of Fountains.* II. *Whether there be a commendable Ambition.*

**T**He First said, That Springs and Rivers come from the Sea, otherwise it would receive a great augmentation by the daily addition of their streams, if it should not suffer an equal diminution by their derivation from it. Therefore the Wise-man saith, *All Rivers go into the Sea, and the Sea is not increased thereby;* and afterwards they return to the place from whence they came, that they may go forth again. Yea, it would be a perpetual Miracle, if after about six thousand years since the Creation of the World the Sea were not grown bigger by all the great Rivers it receives, seeing the *Danubius* alone, were it stop'd but during one year, would be sufficient to drown all *Europe*. But how can the Water, of its own nature heavy and unactive, especially that of the Sea, be carried up to the highest Mountains? As we see the *L'Isere*, and the *Durance*, and other Rivers, descend from the tops of the *Alps*, upon which there are Lakes and Springs in great number, as in *Mont-Cenis*, *Saint Bernard*, and *Saint Godart*. This proceeds from the gravity of the Earth, which always inclining towards its own centre, bears upon the Sea, and so pressing upon the Water, causeth it to rise up into the veins and passages of the Earth; (a resemblance whereof is seen in Pumps) by which passages it is strain'd and depriv'd of its saltness. Which quality is easily separable from Sea-water; for upon the shores of *Africa* there are pits of fresh Water, which cannot come from elsewhere. And if Water mingled with Wine be separated from the same by a cup made of Ivy wood, why not the saltness of the Water too? Thence also it is that Springs retain the qualities of the places through which they pass, having put off those which they deriv'd from their Original.

I.  
Of the Original of Fountains.

The Second said, That the Waters are carried upwards by the virtue of the Cœlestial Bodies, which attract the same without any violence; it being in a manner natural to Inferior Bodies to obey the Superior, and follow the motion which they impress upon them. Unless we had rather ascribe this effect to God,

R

who



who having for the common good of all the world caus'd the Water in the beginning to ascend to the highest places, it hath alwayes follow'd that same motion by natural consecution and the fear of that Vacuity. And of this we have a small instance in the experiment of *Syphons*.

The Third said, He conceiv'd, with *Aristotle*, that Springs are generated in cavities and large spaces of the Middle Region of the Earth, which Nature (who abhorreth Vacuity) fills with Air, insinuated thereinto by the pores and chinks, and condensed afterwards by the coldness of the Earth: Which coldness is so much the greater as that Region is remote from all external agents which might alter it. This condensed Air is resolv'd into drops of Water, and these drops soon after descending by their own weight into one and the same place, glide along till they meet with others like themselves, and so give beginning to a Spring. For as of many Springs uniting their streams a great River is made, so of many drops of Water is made a Spring. Hence it comes to pass that we ordinarily find Springs in Mountains and high places, as being most hollow and full of Air, which becomes condens'd and resolv'd into Water so much the more easily, as the Mountains are nearer the Middle Region of the Air, apt by its vapourous quality to be turn'd into Water, as well in those Cavities as in the Clouds; or else because they are most expos'd to the coldest Winds, and usually cover'd with Snow.

The Fourth said, That there is no transformation of Elements, and therefore Air cannot be turn'd into Water. For whereas we see drops of Water fall from the surface of Marble or Glas, 'tis not that the Air is turn'd into Water, but this moist Air is full of damp vapours, which are nothing but Water rarifi'd, and which meeting with those cold and solid Bodies, are condens'd and return'd to their first Nature. Wherefore the Air is so far from being the cause of so many Springs and Rivers which water the Earth, that on the contrary, all the Air in the world (provided it be not mixt with Water) cannot make so much as one drop. It is more probable that in the beginning of the world, when God divid'd the Elements and the Waters from the Waters, which cover'd the whole surface of the Earth, he gather'd the grossest and most unprofitable water into one mass, which he called Sea, and dispersed through the rest of the Earth the fresh Water, more clear and pure, to serve for the necessities of the Earth, Plants, and living Creatures. Moreover, the Scripture makes mention of four great Rivers issuing out of the terrestrial Paradise, and a Fountain in the middle of it, which water'd the whole surface of the Earth from the Creation. It not being possible that Air resolv'd into Water could make so great a quantity of waters in so little time.

The Fifth added, That those Waters would soon be dry'd up without a new production, for which Nature hath provided by



by Rain, which falling upon the Earth is gather'd together in Subterraneous Cavernes; which are as so many Reservoirs for Springs, according to *Seneca's* opinion. This is prov'd, 1. Because in places where it rains not, as in the Desarts of *Arabia* and *Æthiopia*, there is scarce any Springs; on the other side, they are very frequent in *Europe* which aboundeth with rain. 2. Waters are very low in Summer when it rains but little; and in Winter so high that they overflow their banks, because the season is pluvius. 3. Hence it is that most Rivers and Springs break forth at the foot of Mountains, as being but the rain water descended thither from their tops.

The Sixth said, That it is true that Rivers are increased by Rain, but yet have not their original from it. For were it so, then in great droughts our Rivers would be dry'd up as well as the Brooks. As for Springs, they are not so much as increas'd by Rain; for we see by experience, that it goes no deeper into the earth then seven or eight feet. On the contrary, the deeper you dig, the more Springs you meet with. Nor is the Air, in my judgement, the cause thereof, there being no probability that there is under the earth cavernes so spacious and full of Air sufficient to make so great a quantity of Water; since there needs ten times as much Air as Water to produce it. Neither can the Sea be the cause of Springs; since, according to the Maxime of *Hydraulick*, Water cannot ascend higher the place of its original, but if Springs were from the Sea, then they could not be higher then the level thereof; and we should see none upon the tops of Mountains. Now that the Sea lies lower then Springs and Rivers, is apparent, because they descend all thitherwards.

The Seventh said, That Waters coming from the Sea, and gliding in the bowels of the Earth, meet with Subterranean Fires, which are there in great quantity, whereby they are heated and resolv'd into Vapours. These Vapours compos'd of Water and Fire, mounting upwards, meet some Rocks or other solid Bodies, against which they stick and are return'd into Water; the Fire which was in them escaping through the Pores of those Bodies, the Water trickles forth by the clefts and crevisses of the Rocks, or other sloping places.

The Eighth said, That as Art can draw forth Water by Distillation, Expression, and other wayes taught by Chymistrie; so by stronger reason Nature cannot want wayes to do the same, and possibly in divers sorts, according to the various disposition of places, and of the matter which she employes to that use.

Upon the Second Subject it was said, That there is some correspondence between the two Questions; for as Water serves for a *Medium* of Union in natural Composition; so Ambition serves to familiarise pains and dangers in great enterprizes. For it makes Children strive to get credit in little exercises; and Men think nothing so high but may be soar'd to by the wings of Ambition.

II.  
Whether  
there is any  
Ambition  
commendable.



bition. *Juvenal* indeed gives Wings to necessity, when he saith;  
*A Hungry Greek will fly up to Heaven if they command him*; and  
*Virgil* saith, *Fear adds Wings to the heels of the terrifi'd*; but those  
 of Ambition are much more frequent in our Language. 'Tis true,  
 Ambition may many times beat and stretch forth its Wings, but  
 can no more exalt it self into the Air then the Estrich. Some-  
 times it soars too high, as *Icarus* did, and so near the light that  
 it is burnt therein like Flyes. For the ambitious usually mounts  
 up with might and main, but thinks not how he shall come down  
 again. This Passion is so envious, that it makes those possess'd  
 therewith hate all like themselves, and juggle them to put them  
 behind. Yea, it is so eager that it meets few obstacles which  
 yield not to its exorbitant pertinacy; insomuch that it causeth  
 Men to do contrary to do what they pretend, and shamefully  
 to obey some, that they may get the command over others. The  
 importunateness of Ambition is proof against all check or denial;  
 and the ambitious is like the Clot-burr, which once fastned upon  
 the clothes is not easily shaken off. When he is once near the  
 Court, neither affronts nor other rubs can readily repell him  
 thence. And because his Essence consists in appearance, he  
 many times wears his Lands upon his back; and if he cannot  
 at once pride himself in his Table, his Clothes, and his Train,  
 yet he will rather shew the body of a *Spaniard*, then the belly of  
 a *Swiss*. At his coming abroad, he oftentimes picks his teeth  
 while his gutts grumble, he feeds upon airy viands. When he  
 ha's been so lucky as to snap some office, before he ha's warm'd  
 the place, his desires are gaping after another: He looks upon  
 the first but as a step to a second, and thinks himself still to low, if  
 he be not upon the highest round of the ladder; where he needs  
 a good Brain lest he lose his judgement, and where it is as hard to  
 stand, as 'tis impossible to ascend, and shameful to descend.  
 Others observing, That Honour is like a shadow, which flyes  
 from its pursuers, and follows those that flie it, have indeed no  
 less Ambition then the former, (for I know no condition, how  
 private soever, that is free from it) but they artificially conceal it;  
 like those who carry a dark Lanthorn in the night, they have no  
 less fire then others, but they hide it better. They are like  
 Thieves that shooe their Horses the wrong way, that they may  
 seem by their steps to come from the place whither they are  
 going; or else like those who hunt the *Hyena*. This Beast loves  
 the voice of Man so much that she trusts in it; and (say the  
 Historians) she understands it so well, that when the Hunters  
 would take her, they must cry, I will not have her, I will not  
 have her. But when once they have obtain'd the Honour at  
 which they thus aim'd, by contrary pretensions, they shew suffi-  
 ciently that they desir'd it.

The Second said, That *Ambition* is a desire of exalting our  
 selves, and over-topping the common sort. The Object of it  
 is *Honour*, in the pursuite of which three things are consider'd;  
 namely,



namely, the *Mediocrity*, the *Excess*, and the *Defect*. The *Mediocrity* is call'd *Magnanimity*, or greatness of Courage, by which we seek the great Honours which we merit. The *Excess* is called *Vanity*, when we pursue great dignities which we deserve not. The *Defect* is called *Pusillanimity*, when a Man hath so little Spirit that he deprives himself of Honours, though he is worthy of them. Now as *Liberality* answers to *Magnificence*, so to *Magnanimity* answers another Virtue which hath no name in *Aristotle*, and differs from it but in degree. For that hath regard to great Honours, and this to moderate; and, as all other Virtues, it hath its two vicious *Extremes*, its *Excess*, which is call'd *Ambition*, and its *Defect*, which is *want of Ambition*. Moreover, there are *two* kinds of *Ambition*. One which is bounded within the limits of each condition, whereby every one desires to become perfect in his Art, and to excell others of the same condition; which is very laudable, and argues that he whom it possesses hath something more excellent in him then the vulgar. The *Other* is that which carries us to Honours, which greatly exceed the bounds of our condition, and are not due to us. This is very blameable and dangerous, because it causes great confusion in Mens Minds, and consequently in States. For what is more absurd, then for a Citizen to act a Gentleman, or a Gentleman a Prince? Yea, even this last ought to set bounds to his *Ambition*.

The Third added, That things are to be judg'd of by their Effects; and we see most of the mischiefs which come to pass now in the World are caus'd by the *Ambition* of those who weary of their condition, in which if they continu'd they would be happy, by all means seek after others which seem higher: *Ambition* making them prefer before the good which they know an evil which they know not; because this Passion represents the same to them under the semblance of a greater good. Wherefore the *Julian Law* was introduc'd with good reason, to check and moderate this exorbitant appetite of Honours.

The Fourth said, That indeed extreme and immoderate *Ambition* is a perpetual rack and torture to the Soul, and begets an *Hydropick Thirst* in it, which all the waters of the World cannot allay. But that which is moderate, in my judgement, is not onely unblameable, but very praise-worthy; since it is a desire of perfection, and never any person was ambitious in this manner; but he was either virtuous, or in the way to be so. For this *Ambition* proceeds from a desire of glory, and being accounted better, greater, and wiser then others; and it is grounded upon the knowledge we have, and would derive to others of our peculiar merit. And though the Man be not virtuous, yet there is nothing more proper to render him so then such *Ambition*; one of the most powerful spurs to encourage a well-temper'd Soul to Virtue. 'Tis an Instrument that smoothes all its rough paths. 'Tis a flame that enkindles generous purposes in the Soul to surmount all kinds of obstacles. Would you see its excellence?

Com-



Compare this Ambition, from whence sprang those brave thoughts which brought so great glory to *Alexander*, *Cæsar*, and all those other Heroes of Antiquity, with the shameful sloth of the infamous *Sardanapalus*, *Heliogabalus*, and other Epicures buried in the ordures of their vices, for want of this noble desire of glory. But it is most remarkable, in reference to Ambition, that they who blame it are themselves ambitious; for they do so, onely to ostentate themselves; and they who have written Books against Vain-glory, have yet set their Names in the frontis-piece; and wherefore, but to be talk'd of?

The Fifth said, That the Goodness or Badness of all Actions, depending onely upon their good or bad End, it must be affirmed likewise, concerning Ambition, that it is blameable or commendable; according as he who seeketh Honours hath an honest or dishonest End, and pursues the same by lawful or oblique courses.

The Sixth said, It is so true that there is a laudable Ambition, that not ouely all that is rare in Arts and Sciences, but also all the bravest Heroick Actions owe their being to it. 'Tis one of the most commendable Virtues naturall to Man, and inseparable from a gallant Spirit; It is so much the more excellent, in that it hath for its Object the most excellent of all external Goods, namely, Honour, which Men offer to God, as the most precious thing they have, and which Legislators (finding nothing more valuable) propose for the guerdon of Virtue. This may serve to explain what is commonly said, That Virtue is a reward to it self: Legislators having determin'd that Virtuous Men should find the recompence of their brave Actions, in that noble desire of the glory which they deserve. So that he is no less blameable who deserving Honours and Dignities, and being able to support and exercise them worthily and profitably to the publick, doth not seek them, then he that strives for them and is unworthy thereof. Yea, the former seems to me much more blame-worthy than the latter, whose Ambition, though immoderate, denotes greatness of Spirit; whereas the former, too much distrusting himself, and not daring to attain or reach forth his hand to what appertains by right unto him, shews abundantly the lowness of his Mind, or the little account he makes of Virtue, by sleighting Honour which is the shadow and reward of it, and depriving himself of the means to perform Virtuous Actions, which he may better exercise in Offices and Dignities than in a private life: And which is more, he sets a pernicious example to his fellow-citizens to neglect that Recompence of Virtue, which costs the State less then any other.



CONFERENCE XXI.

I. *Of Dreams.* II. *Why Men are rather inclin'd to Vice then Virtue.*

IT is no wonder that Men seek the interpretation of Dreams. I. *Of Dreams.*  
 For having from all times bent their Minds to foresee the Future, (as the Desire of becoming like God by the Faculty of Divining hath been transmitted from the First Man to all his Posterity) it seems the Images of things presented to them in the night are unprofitable to any other end besides this. And truly since the highest pitch of every Faculty consists in Divination, and the Holy Scripture hath nothing so wonderful as its Prophecies; Physick, nothing so admirable as the Prognostication of diseases; Civil Law, then the Resolution of the good or bad success of an Affair; Yea, since the inextinguishable thirst after the Future hath induc'd all Ethnick Antiquity to feed Fowls for Augury, to immolate Sacrifices for presaging their good or bad Fortune; there is some ground to pardon them and all others who seek some glimmerings of the future in Dreams. I conceive, the most Incredulous; reading in the Scripture that seven lean kine devouring so many fat ones presag'd seven years Famine which consum'd all the store of seven other fertile years; and moreover, the truth confirm'd by the event of the Dreams of so many others, cannot but have them in some reverence. But on the other side, when every one considers how many Phancies come into our heads in sleep, both sick and well, the truth whereof is so rare that it may be compar'd to that of Almanacks, which setting down all sorts of weather, sometimes happen right upon one; or to those bad Archers, who shooting all day long, glory if they once hit the mark; he presently concludes that credit is not lightly to be given to them. Wherefore I think after explication how Dreams are caused, it will be fit to examine whether there be any connexion or affinity between the things which we dream and those which are to come to pass, as there was between the Ægyptian Hieroglyphicks which the things signifi'd by them; and as there is at this day in the Characters of China, and in the Signatures observ'd by some Physicians between some Plants and the Parts or Diseases to which they are proper. For it is not without some hidden reason, that Experience hath caus'd so many persons to take notice, that as (for example) Death and Marriage make a great stir and alteration in the house where they happen, so the one is usually the indicatour of the other; that because the Hen makes a cry when she layes her Eggs, from whence is produc'd a Chicken that cries too, therefore Eggs signifie brawls or quarrels; that Pearls signifie Tears, because they resemble them; that as the Serpent is alwayes mischievous,



chievous, and moves along with little noise, so he denotes secret Enemies; and the cutting off his head, the getting the better of one's Enemies; that as our Teeth are not pluck'd out without pain, so to dream that they fall out, prefigures the death of a Relation; and other such things which cannot be number'd but by a *Calepine*, much less the interpretation thereof unfolded.

The Second said That Dreams are caus'd by the rising of vapours from the Stomack to the Brain, by whose coldness they are condens'd; and then falling like a gentle dew upon the Nerves, and stopping the passages by which the *Animal Spirits* issue to the outward senses, the species of objects which we receiv'd awake, and were then confus'd and agitated by heat, settle by little and little, and become as clearly discern'd as when we were awake: Or else, our *Imagination*, which (as *Aristotle* saith) is like a Painter who makes a mixture of divers colours) joyning several of those species together, formes chimeras and other strange images which have no antitype in Nature. Just as a Child drawing accidentally certain Letters out of a heap mingled together, joynes them and formes words of them which have no sense. And as dirty or stirred waters doth not represent any Image, or very badly; so the *Imagination* being embroil'd and agitated by the gross fumes of the meat which arise after the first sleep, represents ill, or not at all, the images of things which it hath in it self. Hence it is that Drunkards and Children dream little or not at all, and that the Dreams of the first part of the night are turbulent, and those of the morning more tranquil and quiet, to which alone therefore credit is to be given. So that Interpreters of Dreams account the same nearer or farther from their Effect, according as they more or less approach the day-break.

The Third said, That Dreams are different according to the different *Causes* whence they proceed; which are either within us or without us. That which is within us is either *Natural*, or *Animal*, or *Moral*; from which arise three different kinds of Dreams. The *Natural* are usually suitable to the complexion of the Body, and constitution of Humours. Thus the Bilious or Cholerick, dreams of fire and slaughter: The Pituitous, or Flegmatick dreams that he is swimming, fishing, or falling: The Melancholy sees sad and dismal things in his sleep: The Sanguine hath pleasures and jollities in his Phancy. The *Animal* proceed from our ordinary employments, and cause the actions or thoughts of the day to be represented again to the *Imagination* in the night. The *Moral* follow the good or bad inclinations of every one. Thus the Voluptuous person dreams of Delights, and the Ambitious of Honours. The external cause of Dreams is either God or Angels, and these either good or bad; and they either imprint new species upon the Phancy, or dispose those which are in it before, so as thereby to advertise us of things which



which concern us. These alone, in my opinion, are those that are to be taken notice of.

The Fourth said, That besides these causes of Dreams, there are also some corporeal causes, as the temper of the Air, or the constitution of the Heavens, and the nature of places; to which is to be refer'd the relation of *Ammianus Marcellinus*, That the *Atlantick* people have no Dreams; as also the common report, that they who lay Lawrel-leaves under their heads when they go to sleep have true Dreams; together with the Observation of *Aristotle*, that if a Candle cast the least glimpse before the Eyes of such as are a sleep, or a little noise be made near them, they will dream that they see Lightning and hear Thunder; it being proper to the Soul when we are a sleep to make an Elephant of a Flie.

The Fifth said, That the chief inquiry in this matter, is, How any Dreams can signifie that which is Future, and what connexion there is between the figures which Dreams represent to us, and the thing signifi'd to us by them. For it is certain, in the first place, that Dreams have some affinity and conformity with our Temper; This with our *Manners*; our *Manners* with our *Actions*; and finally, our *Actions* with the *Accidents* which betide us. Whence it appears, that according to this series, Dreams have some great correspondence with those *Accidents*. For the Soul, which knows our Temper, and by necessary sequel our *Manners* and *Actions*, beholds in those three together the *Accidents* of our Life; which are annex'd, represented, and contained *potentially* in them, as Fruits and Trees are in Flowers and Seeds. But as Flowers and Seeds are very different in Figure from the Fruits and Trees which they produce; so the Characters of the *Accidents* of our Life being contained, or rather produced by our Temper, our *Manners* and *Actions* are represented to the Soul under the various species of things which are to befall us; because being linked by a streight bond to this corporeal mass, it cannot judge before-hand of things to come, nor admonish us thereof but by the representation of certain Images which we have some resemblance and agreement with those *Accidents*. These Images are different in all Men, according to their several Sympathies and Antipathies, Aversions and Complacencies, or according to the different beliefs which we have taken up by a strong Imagination, or by hear-say, that such or such Figures represented in a Dream signifie such or such things. For in this case, the Soul conjecturing by those impressions which are found in our Temper, is constrain'd to represent the same to us by the Images which our *Imagination* first admitted and apprehended either as unfortunate, or lucky and of good Augury. But if there be any Dreams which presage to us *Accidents* purely fortuitous, and wholly remote from our Temper, *Manners*, and *Actions*, they depend upon another Cause.

The Sixth said, That as during sleep the Animal and inferior



part of Man performs its office best, concocting the nourishment more successfully ; so his superior part being then ( according as *Trismegistus* saith ) more loose and unlinked from the Body, acts more perfectly then during the time we are awake. For being freed and loosned from the senses and corporeal affections, it hath more particular converse with God and Angels, and receives from all parts intelligence of things in agitation. And, according to *Anaxagoras*, all things bear the Image one of another ; whence, if there be any effect in Nature which is known in its cause, as a tempest in the Sea, a Murder in the Woods, a Robbery or other accident upon the High-way ; the Power, which is to be the original thereof, sends a Copy and Image of the same into the Soul.

The Seventh said, That he as little believ'd that the Species and Images of things come to the Soul, as that the Soul goes forth to seek them during sleep, roving and wandring about the world, as it is reported of the Soul of *Hermotimus* the *Clazomenian*. *Aristotle* indeed saith, that there are some subtile natures which seem to have some pre-science of what is to come ; but I think it surpasseth the reach of the Humane Soul, which being unable to know why a Tree produceth rather such a Fruit then another, can much less know why those species are determin'd, rather to signifie one thing then another.

The Eighth said, He could not commend the superstitious curiosity of those who seek the explication of Dreams, since God forbids expressly in the Law to observe them ; and the Wise-man assures us, that they have caus'd many to stumble and fall. And why should the things which we fancy in the night have more signification then if we imagin'd them in the day ? For Example, If one dream in the night that he flyes, is there any more reason to conjecture from thence that he shall arise to greatness, then if the thought of flying had come into his Mind in the day time ; with which in the dayes of our Fathers an Italian had so ill success, having broken his neck by attempting to flie from the top of the Tower *De Nefse* in this City ; a fair Example not to mount so high.

II. Upon the Second Point, it was said, That our Inclinations  
*Why Men are* tend rather to Vice then to Virtue, because Delight is alwayes  
*rather inclin'd to Vice* concomitant to Vice, as Honesty is to Virtue. Now Delight  
*then to Virtue* being more facile, and honesty more laborious, therefore we follow rather the former then the latter. Moreover, the Present hath more power to move our Inclinations, because it is nearer then the Future, which as yet is nothing. Now Delight is accounted as present in a Vicious Action, and the reward of Virtue is look'd upon as a far off and in futurity. Whence Vice bears a greater stroke with us then Virtue. If it be objected that a Virtuous Action hath alwayes its reward inseparable, because Virtue is a Recompence to it self ; I answer, that this is

not



not found true, but by a reflection and ratiocination of the Mind, which hath little correspondence with our gross senses; and therefore this recompence, which is onely in the Mind, doth not gratifie us so much as the pleasures of the Body, which have a perfect correspondence with our corporeal senses by whom the same are gusted in their full latitude. But why doth Vice seem so agreeable to us, being of its own nature so deformed? I answer, that it was necessary that it should be accompani'd and sweetned with Pleasure; otherwise the eschewing of Evil, and the pursuing of Virtue, would not have been meritorious, because there would have been no difficulty therein. Moreover, Nature hath been forc'd to season the Actions of Life with Pleasure, lest they should become indifferent and neglected by us. Now Vice is onely an Excessive or Exorbitant exercising of the Actions of Life which are agreeable to us; And Virtues are the Rules and Moderators of the same Actions. But why are not we contented with a Mediocrity of those Actions? 'Tis because Life consists in Action, which is the more such, when it is extended to the whole length and breadth of its activity, and ownes no bounds to restrain its liberty.

The Second said, All would be more inclin'd to Virtue then to Vice, were it considerd in it self, there being no Man so deprav'd but desires to be virtuous. The covetous had rather be virtuous and have wealth, then be rich without Virtue. But its difficulty, the companion of all excellent things, is the cause that we decline it. And we judge this difficulty the greater, for that our Passions carry the natural and laudable inclinations of our Soul to Vice, which is much more familiar and facile to them then Virtue. Wherefore *Aristotle* saith, all Men admit this General Proposition, *That Virtue ought to be follow'd*; But they fail altogether in the particulars of it. Besides, Man is able to do nothing without the Ministry of his Senses; and when, in spite of difficulties, he raises himself to some Virtuous Action, presently the *Sensitive Appetite* repugnes against it; and as many inferior Faculties as he hath, they are so many rebellious and mutinous Subjects, who refuse to obey the Command of their Sovereign. This Intestine Warr was brought upon Man as a punishment for his first sin; ever since which, *Reason*, which absolutely rul'd over the Sensitive Appetite, hath been counter-check'd and mast'ed by it.

The Third said, As there are a thousand wayes of straying and erring from the mark, and but one, and that a strait, line to attain it; so it is possible to exceed or be deficient in Virtue infinite wayes, but there is onely one point to acquire its Mediocrity.

The Fourth affirmed, That the way of Vice being more spacious then that of Virtue, yea, Evil (according to *Pythagoras*) infinite, and Good bounded; it follows that there are infinitely more Vices then Virtues; and therefore is not to be won-



dered if there be more vicious persons then virtuous.

The Fifth said, We are not to seek the cause of our vicious inclinations other where then within our selves; it being deriv'd from the structure and composition of our Bodies. For he who hath not what to eat, and wherewith to defend himself from cold, or who fears distress, finds the seeds of theft in his natural inclination of self-preservation. The same Fear makes him become covetous. When any thing obstructs the accomplishing of his wishes, if he be weak, he becomes sad thereupon; if strong, he falls into Choler. This Passion leads him to revenge, the height of whose violence is Murther. If the enjoyment thereof be free to him, the pleasure which he takes therein produceth Luxury and debaucheries; and thus 'tis with all Vices. On the contrary, poor Virtue meets with nothing in us but opposition: The Stomack, the Intestines, and all the natural parts revolt against Temperance and Continence: The Cholerick Humour fights against Clemency: Covetousness inciteth to Injustice; the Comparison of our condition with that of our betters, to Ambition and Envy; with that of our Inferiours, to Pride and Disdain. In brief, Virtue finds nothing in us that makes for her interest, which seems to me the reason why it is less familiar to us then Vice.

The Sixth said, No person is either vicious or virtuous of his own nature, but he becomes so by Instruction and Custome. Instruction is so powerful, that it makes even Beasts capable of Discipline. Custome is of such influence, that it is rightly term'd an other nature. Wherefore our being rather vicious then virtuous, is not from any natural inclination. For, on the contrary, we have the seeds and sparks of Virtue within us; and I almost believe, with *Plato*, that when Men become vicious, it is by force and against their nature. But the fault proceeds from our bad Education and corrupt Customes, which become yet worse by the conversation of vicious persons, who are very numerous.

The Seventh said, Though we consent more easily to Virtue then to Vice, yet the number of the good and virtuous being less then that of the wicked and vicious, hath caus'd the contrary to be believ'd. The reason whereof is not the difficulty of doing well; but because Vices are esteem'd and rewarded instead of being punish'd, and Virtue instead of Recompence receives nothing but Contempt: So the Exorbitancy of Clothes, instead of being punish'd, causeth him to be honoured who is unworthy to be so. Wherefore if there were a State in which Reward and Punishment were duly dispens'd from the Cradle, it would be a rarer thing to see a wicked man there then a black Swan; because the good which we love, and the evil which we hate, would be inseparably joyn'd together, the one with Virtue, and the other with Vice.



## CONFERENCE XXII.

## I. Of Judiciary Astrology. II. Which is least blameable, Covetousness or Prodigality.

**T**He weakness of our reasoning is a strong argument to abate the presumption of our being able to judge of the power of the Stars. For if we are ignorant of the nature of the least Herb we tread upon, we must be more so of that of the Celœstial Bodies which are so remote from us and our knowledge, that the greatest masters of this Art dispute still, whether every Star be a several world, whether they are solid or not, what qualities they have, and which are the true places. Besides, the local motion of Animals may wholly frustrate the effect of their influences. And if *Xanthus* hindred the Sun from making his head ake when he walk'd abroad, and the Moon doth not chill those that are in the house, certainly the effects of less active and remoter Stars may be declin'd by the same wayes; since Fire, the most active thing in nature, doth not burn if the hand be mov'd swiftly over it. And what more was to be fear'd by *Americus Vesputus*, *Ferdinand Magellan*, and others, who sail'd round the Earth one way, whilst the Heaven turn'd the other? Why should we seek in Heaven the Causes of Accidents which befall us, if we find them on Earth? And why should we look so far for what is so near? Is it not more fit to refer the cause of Knowledge to study; of Riches and Honour, to Birth, Merit, or Favour; of Victory, to the dexterity and diligence of the General, who cast his contrivance well to surprize his Enemy, then to attribute these Events to the Planets? If experience be alledg'd to manifest the effect of many Predictions; I answer, that as the Animal which is said to have made a letter by chance with its Hoof in the dust, was no Scribe for all that; so though amongst a thousand false predictions, one by chance proves true, yet is not the Art ever the more certain. Yea, I will urge it against themselves; for it is not credible that we should see so many unfortunate Astrologers, if they could fore-see their own infelicity, or else they must acknowledge themselves fools; since they grant that the Wise-man rules over the Stars.

The Second said, That every thing here below suffers mutation, and nothing is able to change it self; whence it follows that that which is the cause of Alteration must it self be exempt from the same. Whence consequently the Heavens which are the sole Body that suffer no change, must be the cause of all mutation. For the Elements are the *material* cause thereof, and therefore cannot be the *Efficient*. And as the Stars are the thickest and onely visible part of Heaven, so they have most light and influence, by which (assisted with their motions) they communicate

I.  
Of Judiciary  
Astrology.



municate their qualities to the Air, the Air to the Bodies which it toucheth, especially to the humours in Man, over which it hath such power, that its diversity diversifies all the complexions of Man-kind. Now our Humours model our Manners, and these our most particular Actions. They may talk that the Wise-man over-rules the Stars, but Experience shews that the Stars guide the Will, not by compelling it, but by inclining it in such a manner that it cannot resist; because they subminister to it the means determined to the End whereunto they incline it; whence it is as hard (yea, impossible) for it to draw back, as for a Drunkard to forbear drinking when he is very thirsty and hath the bottle at his command. The Impostures which are affirm'd of the Casters of Nativities, can no more prejudice or disparage Judiciary Astrology, then Mountebanks do Physick. Yea, though the state of Heaven be never twice the same, yet is it not so in the subjects of all other Disciplines. Never were two diseases found altogether alike in Physick; nor in Law two Cases alike in all their circumstances; yet the Precepts of these Sciences are nevertheless true; because it sufficeth that the principal conditions concur, as it is also sufficient that the same principal aspects and situations of the Stars be found in Heaven, for the making of Rules in Judiciary Astrology.

The Third said, Every Effect followeth the Nature of its Cause, and therefore the Actions and Inclinations of the Soul cannot be ascrib'd to a corporeal cause, such as the Stars are; For if all were govern'd by their influences, we should see nothing but what were good, as being regulated by so good causes. I acknowledge but two virtues in the Heavens, *Motion* and *Light*, by which alone, and not by any influences of occult qualities, they produce corporeal effects. Thus ought *Aristotle* to be understood, when he referreth the cause of the continual Generation of Inferior things, to the diversity of the Motions of the *First Moveable* and the Zodiack; And *Hippocrates*, when he foretelleth the events of Diseases by the several Houses of the Moon.

The Fourth said, It is impossible to make an Art of predicting by the Celæstial Motions, for five reasons, besides the dominion which our Will hath over Effects; without which it were free. 1. The Connexion that is between the Celæstial Bodies and the Sublunary is unknown to Men. 2. The diversity of the Celæstial Motions causeth that the Heaven is never in the same posture as it ought to be, for the making of a sure and certain Art grounded upon many repeated Experiments; according to which, like Effects are to be referr'd to like Causes. 3. The extreme rapid and violent turning about of the Heavens doth not afford to find the precise minute of a Nativity, for drawing the Theme or Figure of the true state of Heaven, which they say is necessary. 4. As of sixteen Consonants joyn'd with five Vowels are made words without number; so of a thousand  
and



and twenty two Stars and more, with seven Planets, may be made Conjunctions and Combinations to infinity, which surpass the comprehension of humane wit ; there being no Art of things infinite. 5. Two persons, or more, born at the same time under the same Elevation of the Pole, and disposition of the Heavens ; (as they speak) yea, two Twins ; as *Jacob* and *Esau*, are found oftentimes different in visage, complexion, inclination, condition, and end. But is it probable that a hundred Pioneers stifled in the same Mine, or ten thousand Men dying at the same battle, have one and the same influence ?

The Fifth said, God having from all eternity numbred the hairs of our Heads, that is to say, foreseen even the least Accidents which ought or may befall Men, he hath establish'd an order for them in the Heavens, disposing the course, aspects, and various influences of the Stars, to draw out of Nothing those accidents at the time that they are to happen to Men, whom they incline to meet the same ; yet so as to leave it in the power of their Free-will to avoid or expose themselves unto them without any constraint. This truth is sufficiently confirm'd by the exact and admirable correspondence which is found between the most signal accidents of our lives, and the hour of our Nativities ; so that Astrologers not onely conjecture by the time of the Nativity what is to come to pass, but they also come to the knowledge of the true minute of the Nativity, by the time at which accidents arrive, and take this course to correct Horoscopes, and Figures ill drawn. And although long Experience may attest the certainty of this Art, yet I confess, since the faculties and qualities of the Stars are not perfectly known to us, and we cannot alwayes precisely know the disposition of Heaven, much less all the combinations of the Stars ; Astrology, in respect of us, is very uncertain and difficult, but not therefore the less true and admirable in it self. It is like a great Book printed in Hebrew Letters without points, which is cast aside and sleighted by the ignorant, and admir'd by the more intelligent. So the Heavens being enamel'd by Gods Hand with Stars and Planets as with bright Characters, which by their Combinations figure the various accidents which are to befall Men, are never consider'd by the ignorant, to dive into their Mysteries, but onely by the Learned ; who themselves many times commit mistakes when they go about to read them, because those shining Characters have no other Vowels, or rather no other voice, but that of God, who is the true Intelligence thereof.

The Sixth said, Three sorts of persons err touching the credit which is to be given to Astrological Predictions. Some believe them not at all, others believe them too little, and others too much. As for the first, since they cannot deny that the Stars are universal causes of sublunary effects ; that such causes are of different natures and virtues, and that their action and virtue is dispens'd by the motion which is successive and known ; they  
must



must of necessity confess, that knowing the disposition of sublunary subjects, the nature of the Stars, and their motion, many natural effects may be fore-seen and fore-told from them. The Devil himself knows no future things certainly, but by foreseeing the effects of particular causes in their universal causes, which are the Stars. They who believe too little confess that the Stars act upon the Elements and mixt Bodies; for very Peasants know thus much, besides many particular effects of the Moon. But as for Man, whose Soul of it self is not dependent upon any natural cause, but free, and Mistress of its own actions, they cannot, or for Religion's sake, dare not affirm that it is subject to Cœlestial Influences, at least, in reference to manners. Yet it is no greater absurdity to say, that the Soul is subject to the Stars, then to say with *Aristotle* and *Galen*, that it is subject to the Temperament of the Body, which also is caus'd by the Stars; from the influence and action whereof the Soul cannot exempt its Body, nor the Temperament thereof by which she acts. Lastly, they who give too much credit to the Stars hold that all things are guided by a fatal and irrevocable order of Nature; contrary to Reason, which admits the Author to be the Master of his own work; and to Experience, which assures us of the standing still of the Sun for *Joshuah*, of his going backward for *Hezekiah*, and of his Eclipse at full Moon during the Passion. The Fourth Opinion is certain, that there is truth in Astrological Predictions; but it behoveth to believe them onely in a due measure, since the Science of it self is but conjectural.

II.  
Whether is  
less blame-  
able, Avarice  
or Prodigal-  
ity.

Upon the Second Point it was said, That Avarice is less blameable then Prodigality. For the latter is more fertile in bad actions then the former, which though otherwise vicious, yet refrains from the pleasures and debaucheries in which the Prodigal usually swims. The Holy Scripture intending to set forth an example of Infinite Mercy, relates that of the Prodigal Son, who obtain'd pardon of the sin which is least worthy of it. Moreover, Prodigality doth far less good then Covetousness, for this always looks at its own profit, and takes care for its own benefit, and the preservation of its dependents; so that it exerciseth at least the first fundamental of Charity, which is, to do well to those who are nearest us. On the contrary, Prodigality ruins and perverts the Laws of Nature, leading a Man to the destruction of his relatives, and the undoing of himself; like *Saturn* and Time, it devours its own issue, and consumes it self, to the damage of the Common-wealth, whose interest it is that every Man use well what belongs to him. Therefore all Laws have enacted penalties against Prodigals, depriving them of the administration of their own Estates; and the most Sacred Edicts of our Kings aim at the correcting of the Luxury of Prodigality. But never were any Laws, Punishments, or inflictions ordained against Covetousness, because Prodigality causeth the down-fall and destruction



struction of the most Illustrious Houses; which cannot be attributed to Covetousness, for this seemes rather to have built them.

The Second said, That, according to *Aristotle*, amongst all the virtuous, none wins more Love then the Liberal, because there is alwayes something to be gotten by him; as amongst all the vicious none is more hated and shun'd by all the world then the covetous, who doth not onely not give any thing, but draws to himself the most he can from every one and from the publick, in which he accounts himself so little concern'd, that he considers it no farther then how he may make his profit of it. He is so loath to part with his treasures when he dyes, that he would gladly be his own Heir (as *Hermocrates* appointed himself by his Testament) or else he would swallow down his Crowns (as that other Miser did, whom *Athenæus* mentions.) But the Prodigal (free from that self-interest, which causes so great troubles in the world) gives all to the publick, and keeps nothing for himself. Whence, according to *Aristotle*, the Prodigal is not so remote from Virtue as the Covetous, it being easier to make the former Liberal then the latter.

The Third said, These two Vices are equally oppos'd to Liberality, and consequently one as distant from it as the other. For as the Covetous is Vicious in that he receives too much and gives nothing; so is the Prodigal in that he gives too much and receives nothing at all, or receives onely to give. But Covetousness hath this priviledge, that it finds a Virtue from which it is very little distant, namely, Frugality, or Parsimony, to which Prodigality is diametrically oppos'd. Nor is it of little advantage to it, that it is ordinarily found in Old Men, whom we account wiser then others; for having learn't by the experience of many years, that all friends have fail'd them in time of need, and that their surest refuge hath been their own Purse; they do not willingly part with what they have taken pains to gather together, which is another reason in favour of Covetousness. For Virtue and Difficulty seem in a manner reciprocal. But Prodigality is very easie and usual to foolish Youth, which, thinking never to find the bottome of the barrel, draws forth incessantly, and gives so freely, that being over-taken with necessity, it is constrain'd to have recourse to Covetousness, which sets it upon its leggs again. Nor ever was there a Father that counsel'd his Son to be prodigal, but rather to be thrifty and close-handed. And yet the Gospel and Experience shew, that Fathers give and advise what is most expedient to their Children.

The Fourth said, As Rashness is much less blameable then Cowardice, so is Prodigality then Avarice. For the Prodigal holding it ignominious to receive, and glorious alwayes to give, likes rather to deprive and devest himself of his goods, then to deny any one whatsoever. On the other side, the Covetous

T

doth



doth nothing but receive on all hands; and never gives any thing but with hope to receive more. Now it is much more noble to give then to receive; for Giving supposes Having. The Prodigal knowing well that goods and riches are given by God, onely to serve for necessary instruments to the living more commodiously, and that they are not riches if they be not made use of, employes them, and accommodates himself and others therewith; but the Covetous doth not so much as make use of them for himself, and so destroyes their end.

The Fifth said, If the Question did not oblige us to compare these two Vices together, I should follow *Demosthenes's* sentence which he gave in the quarrel of two Thieves that accus'd one another, which was, that the one should be banish'd *Athens*, and the other should run after him. I should no less drive out of a well-policy'd State the Covetous and the Prodigal. The first is *Æsop's* Dogg, who keeps the Ox from eating the hay, whereof himself tastes not; like the Bears who hinder Men from approaching Mines of Gold, and yet make no use thereof. The other is like those Fruit-trees which grow in Precipices, of which onely Crows and Birds of prey eat the Fruit; vicious persons alone ordinarily get benefit by them. But yet this latter Vice seemes to me more pernicious then the other. For whether you consider them in particular, The Covetous raises an Estate which many times serves to educate and support better Men then himself: But Prodigality is the certain ruine of their Fortunes who are addicted to it, and carries them further to all other Vices, to which Necessity serves more truly for a cause then reasonably for an excuse; or whether you consider them in general, 'tis the most ordinary overthrow of States. And possibly he that should seek the true cause of publick Inconveniences, would sooner find it in Luxury and Prodigality, then in any thing else. Therefore *Solons's* Law declar'd Prodigals infamous, and gave power to their Creditors to dis-member them and cut them in pieces. Our Ordinances, in imitation of the Roman Law, which ranks them under the predicament of Mad-men, forbids and deprives them of the administration of their own goods, as not knowing how to use them.

The Sixth said, Avarice is like those Gulfes that swallow up Ships, and never disgorge them again; and Prodigality like a Rock that causes shipwracks, the ruines whereof are cast upon the coasts of *Barbarians*; and therefore both of them ought to be banish'd, and I have no Vote for either. Yet Prodigality seemes to me more fair, and Covetousness more severe.



## CONFERENCE XXIII.

## I. Of Physiognomy. II. Of Artificial Memory.

**T**Heophrastus accusing Nature for not having made a window to the Heart, perhaps meant, to the Soul. For though the Heart were seen naked, yet would not the intentions be visible; they reside in another apartment. The Countenance, and amongst its other parts, the Eye seems to be the most faithful messenger thereof. It doth not onely intimate sickness and health, it shews also hatred and love, anger and fear, joy and sadness. In short, 'tis the true mirror of the Body and the Soul, unless when the Visage puts on the mask of Hypocrisie, against which we read indeed some experiences; as when *Ulysses* discover'd the dissimulation of *Achilles*, disguis'd in the dress of a Damself, by the gracefulness wherewith he saw him wield a sword; but there are no rules or maxims against it, and never less then in this Age of counterfeits; in which he that is not deceiv'd, well deserves the name of Master. For security from it, some ingenious persons have invented Rules whereby the inclinations of every one may be discern'd; as Masons applying the Rule, Square, and Level upon a stone, judge whether it incline more to one side then the other. For you see there are many different species of Animals, every one whereof is again subdivided into many others, as is observ'd in Doggs and Horses; but there are more different sorts of Men. Whence the Philosophers of old took up the opinion of Metempsychoses, or Transanimations, imagining there could not but be (for example) the Soul of a Fox in those whom they found very crafty; and that the Soul which delighted to plunge it self in filthiness and impurity must needs have been heretofore in the Body of a swine. And though the outward shape of Man puts a vail upon all those differences, yet they are visible through the same to those who have a good sight; as we may distinguish Ladies through the Cypress with which they vail themselves at this day, if we take good heed, otherwise we may be mistaken. We must therefore inquire, here, whether through the external figure common to all Men, what every one hath peculiar be not the sign of his inclinations; either as the Effect, or as the Cause of the same: As redness of the Cheeks is usually an argument of the disposition of the Lungs. Nor is it material to know why it is a sign, it sufficeth to me to know that it is so. To which the variety of Bodies, and especially of Faces, affords great probability, because Nature hath made nothing in vain; and why this variety, unless to serve for a sign, since it serves to distinguish them?

The Second said, Physiognomy is the knowledge of the inside by the outside, that is, of the affections and inclinations of the Mind by external and sensible signes, as colour and figure. It



is grounded upon the correspondence of the Soul with the Body, which is such that they manifestly participate the affections one of the other. If the Body be sick, the Soul is alter'd in its operations, as we see in high Fevers. On the contrary, let the Soul be sad or joyful, the Body is so too. Therefore the Sophisters of old purg'd themselves with Hellebor when they would dispute best. For though in its essence the Soul depends not on the corporeal Organs, yet it depends upon the same in its operations, which are different according to the divers structure of the Organs; which, if they were alike dispos'd, their actions would be alike in all, and at all times. Whence, (saith *Aristotle*) an old man would see as clear as a young man, if he had the Eyes of a young man.

The Third said, To make a certain judgement upon external signes, heed must be taken that they be natural. For 'tis possible for one of a Sanguine Constitution to have a pale and whitish colour, either through fear, sickness, study, or some other accident. The Phlegmatick when he hath drunk to excess, been at a good fire, is in anger, or asham'd of something, will have a red Face. And yet he that should argue from these signes would be mistaken.

The Fourth said, Since Physiognomists grant that their Rules are not to be apply'd but to Men void of all Passions, which so change the Body that it seemes another from it self, I conceive, this Art is altogether impossible. For I would know in what moment we are to be taken without Sadness, Joy, Hatred, Love, Anger; in short, without any of those Passions so inseparable from our Life, that *Xanthus* found no better way to be reveng'd on *Æsop*, then to ask him for a Man that car'd for nothing; such as he would be that should have no Passions. What then will become of the goodly Rules of Physiognomy, after that Education of Youth hath corrected perverse inclinations, that Philosophy hath given the lie to the Physiognomists of this Age, as it did heretofore to *Zopyrus*, when he pronounc'd his opinion upon *Socrates*; or that Piety, as is seen in so many holy personages, hath reform'd the Will, evil habits, and Nature it self?

The Fifth said, As there is nothing more wonderful then to judge of a Man's manners at the first sight, so there is nothing more difficult. It is endeavour'd four wayes. First, By the structure of each part of the Body. So the great Head and square Fore-head, denote Prudence and good judgement; the small Head shews that there is little brain, and narrow room for the exercise of the internal senses; the sharp Head denotes impudence. The Second way, is, by the Temperament. So the ruddy countenance, yellow hair, and other signes of the Sanguine Humour, shew an indifferent Spirit, pleasant, and inclin'd to Love. A pale complexion, fat Body, clear voice, slow gate, which are the characters of Phlegme, denote cowardice and sloth. Soft and tender flesh is a token of subtlety of the Senses, and consequently of the

wit;



wit; hard flesh, of dulness. Whence Man, the wisest of all Animals, hath a more delicate flesh than any of them. The Third way, is, by comparing the external signes of every one with those which are observ'd in Men when they are in Passion. So because he that is in Choler hath sparkling Eyes, hoarse voice, and the jugular veins turgid; we conclude that he who hath all these signes naturally, is naturally inclin'd to that Passion. But as for the Fourth and last, which is, by comparing Man with other Animals, heed must be taken how we credit such a sign alone. For as a single letter doth not make a discourse, so an external similitude alone with an Animal doth not infer the resemblance of our Nature to that of that Animal. There must be a concurrence of many of these signes together. As if I see a Man with a neck moderately fleshy, a large breast, and the other parts in proportion, as the Lyon hath; harsh hair, as the Bear; a strong sight, as the Eagle; I shall conclude that this Man is strong and courageous.

The Sixth said, That the reason why Physiognomists choose irrational creatures, to signifie the inclinations and manners of Men rather than Men themselves; is, because Man is a variable Animal, and most commonly useth dissimulation in his actions; Whereas Animals, void of Reason, less conceal from us the inclinations of their Nature, by which they permit themselves to be guided. So we see the same person will sometimes do an act of Courage, sometime another of Cowardice; sometimes he will be merciful, at another time cruel. But other Animals are uniform in all their actions. The Lyon is alwayes generous, the Hare ever cowardly; the Tyger, cruel; the Fox, crafty; the Sheep, harmless. So that a certain judgement may be pass'd upon these, but not upon Men.

The Seventh said, That as the accidents superven'd to our Bodies after our Birth afford no certain judgement, but onely the signes which we bring from our Mothers Womb; so the natural inclinations and habits may be well judg'd of by exact inspection into the constitution on which they depend; but not those which are acquisitious, whereof no certain judgement is to be had. Yet this inspection of the Temperament is very uncertain too, by reason it is extremely difficult to understand the constitution of every one; so that *Galen* confesses, that after fifty years study in Physick, he could not attain a perfect knowledge thereof.

The Eighth said, It is a groundless thing to make our manners depend upon the colour which the Excrementitious Humours produce in the skin; much less do they depend upon the shape of the Muscles, which alters when a Man grows fat or lean; and followes the conformation of the Bones; and yet less upon the Lineaments, which have nothing to do with our internal disposition; what ever Experiences *Spigellius* alledgeth, of having observ'd in his dissections, that all those who were executed for Crimes



Crimes prepens'd long before, had the two lines which are upon the uppermost part of the Nose, crossing one the other when they knit their brows.

II.  
Of Artificial  
Memory.

Upon the Second Point it was said, That the Art of Memory invented (as 'tis reported) by *Simonides*, is a company of Rules, by help of which the species of things dispos'd in the treasure of the Memory are reviv'd. And the action of this Faculty consisting in a certain temper of the Brain, which may be preserv'd and amended by the right use of external things; they deny the sensible effects of Physick, who question, whether the Memory may be perfected, and consequently, whether there may be an Art of it. *Raymond Lullie* hath compriz'd his in a Categorical or mystical Order; *Rombertio*, in his memorable Reductions; *Gesualdo* the Neapolitan, in certain Characters; all, in Places, Images, and Order. First for Places, as in passing near a place, it puts you in mind of what you have seen or done there; so taking a certain place so well known to you that it cannot escape you, as your lodging, or the four walls of your Chamber; it will faithfully return to you the things that you shall consign to it. Secondly, for Images; as it is impossible but I must remember my friend when I see his picture; so when I look upon certain Images which shall signifie to me the things whereof I am to treat, (with which consequently they must have correspondence) I easily remember those things. These Images must either be without us, as Statues or Hangings of Tapistry are to a Preacher; or else within us, and so effectual and known that they alwayes come into our Minds, as the red and pimpled Face of a known person doth, to signifie Choler and Drunkenness; a pale face, for fear; and so of the other points of the discourse. Thirdly, for Order, it is by consent of all term'd the parent and guardian of Memory.

The Second said, That to question the benefit of the Art of Memory, which makes Rules for the same, is, to be an Enemy to Order. And because we cannot judge better of one contrary then by the other; the good thereof is best apprehended by considering the evils which arise from confusion. For as we know nothing but what we have in our Memory, whence the words of *knowing* and *being mindful* are very fitly taken by the vulgar for the same thing. So as Man may have abundance of motions, yet if he know not how to use them in a fitting occasion, or if his knowledge be confus'd, he deserves rather the name of a *stuffer* then of a knowing man; and this for want of the Order which the Art of Memory teacheth us. For all things have some connexion among themselves, either Natural or Artificial. The former is found in Tree of Substance and Accidents. Plants have their rank, Animals theirs; and amongst Men, Time, Place, Dignity, and some circumstances supply the like to them. As *Cyrus* was before *Alexander*, he before *Cæsar*; and again, he before



before *Cicero* in dignity, and *Cicero* before *Roscins*. But the Memory is chiefly troubled to retain the artificial connexion of things and words, assign'd to them by our own disposal, especially when the same is remote from the natural. 'Tis here that the wonders of this Art are particularly discover'd; by help whereof *Seneca*, in his Declamations, glories that he learnt the names of two thousand persons, and repeated them in the same order wherein they were pronounc'd to him. *Cardan* confesses that he ow'd all he knew to this Art. And Cardinal *Perron* knew how to use it so well before *Henry III.* that he caus'd himself to be taken for the Author of an Heroick Poem, which he repeated, word for word, after hearing it once read.

The Third said, That seeing Memory hath oftentimes fail'd great personages at need, as *Demosthenes* before *Philip*, *Budæus* before *Charles V.* and many others; it is as profitable to strengthen it, as the Rules are difficult which conduce thereunto. Some phancy to themselves five chambers, in each corner whereof, they place a Man of their acquaintance, and in their Minds apply to his Head the first word or thing which they would remember; upon his right arm, the second; the third, upon his left arm; the fourth, upon the right foot; and the fifth, upon the left; (the number five seeming to them the most easie for Multiplication) If the thing be not corporeal, they conceive it under some species representing the sound of the word; or else of two they make one, or divide it; proceeding thus from corner to corner, and from chamber to chamber, and adding five more to the former, if need require. Others compose a word of the first letters or syllables of the names which they would repeat; as if I would speak first of *Augustus*, then of the Emperours *Rodolphus*, *Matthias*, *Valentinian*, and lastly, of *Solon*; I take the word *Armus*, in which I find their first letters, which guide me to the rest. The same they do at the beginning of periods, which some others make to begin where the preceding end.

The Fourth said, Memory is an *Internal Sense*, which (as the other two, *Phancy* and *Common Sense*) depends onely upon Nature. And as the fabulous *Salmonæus* was struck with Lightning for having imitated Lightning; so they who go about to alter by their artifice this Divine Workmanship, find themselves rewarded with the utter loss of their natural Memory. Moreover, the softness of the Brain is the cause of a good Memory, and the hardness thereof of its weakness; whence Children have better Memories than grown persons. Now we cannot change the consistence of the Brain, and they who have us'd Balm-water and other remedies for that purpose, have found that they more weakned their Judgements than strengthened their Memories. From whence ariseth another reason to shew that those two Faculties being for the most part equally balanc'd, it is no easier for him that hath a bad Memory to make it better, then to procure a good Judgement in him which wants it.

The



The Fifth saith, He conceiv'd it no less difficult to remember the Places, Images, and odd precepts of this Art, and apply them to the subject, then to learn by heart at first the things themselves, or their words; which also when learnt by this Art are soon lost, as being found upon chimeraes, of which the Mind cannot alwayes so thorowly clear it self but there will be left some Idea thereof; more apt to trouble the Memory then to assist it alwayes. However, I had rather learn a little, labourously, with the profit and impressiion ordinarily accompanying my pains, then feed upon those vain pictures. Wherefore I am prone to think, that either there is no Art of Memory, or else that it is unprofitable or mischievous, and as such to be rejected by all the world.

The Sixth said, Since where ever there is defect, there is need of some Art to correct the same, and remove from the Faculties the obstacles which they meet with in the exercise of their Offices; why should Memory alone be destitute of this succour? Considering it hath wayes so various, that not onely words which signifie something, but those which signifie nothing are of use to the Memory. Therefore *Aristotle* saith, He who would remember must make barbarismes. And to fix a name or word in the Mind, a Man will utter many which come near it. But as this Art is not to be despis'd, so neither is it alwayes to be made use of, much less in things which have some order of themselves; as, Anatomy, Geography, Chronology, and History; or in which a good natural Memory can contrive any. They who have this Faculty vigorous from their birth, or made it such by exercise, wrong themselves in employing the precepts of this Art for that purpose; as a Man of five and twenty years old should do if he made use of spectacles; having no need thereof. But it is onely fit for those who having a weak Memory would remember many barbarous names or some coats and numbers, the variety whereof many times breeds confusion; for the recollecting of which, this Art teaches to remember certain shapes, figures, or species, sometimes the most uncouth that can be excogitated, to the end the Phancy may be more effectually moved by the same.

#### CONFERENCE XXIV.

I. *Which of the Five Senses is the most noble.*

II. *Of Laughter.*

I.  
*Which of the  
five Senses is  
the most  
Noble.*

AS he who hath the present sense of any Disease, accounts that the greatest; so they who exercise some one of their Senses more then the rest, who get profit by it, or are delighted in it, willingly award the precedence to the same. Take the judgement



ment of a Perfumer, he values nothing but Odors and the smell, which judgeth thereof. He will tell you, that if we had the perfect knowledge of Aromatical Compositions, they would ravish all our Senses; that Perfume must needs have something Divine in it, because God so lov'd it, that he particularly reserv'd it to himself, and forbad all others to use a certain Composition, under pain of death. The same is also argu'd from the offence we take at the evil scent of any stinking thing, that so the very name of it passing onely through our ears displeases us in such sort, as to disparage the truth of the Proverb, that *Words do not stink*; as, on the contrary, the name alone of the Rose, Violet and Jasmin, seemes to recreate the smelling by the Ear. Poets and Lovers will be for the Eyes and the Touch. They who understand Opticks will hold that 'tis the seeing which affordeth the greatest wonders; Whence Comical Representations move so powerfully, and Sight hath more influence upon us then Hear-say. If you will take the judgement of Musicians, the Hearing shall carry the Bell from the other senses; and this Position is back'd with the experience of Melody, Perswasion, and the Art of Oratory; which caus'd Antiquity to feign two sorts of *Hercules*, the one who subdu'd monsters with the blows of his club, and the other who captivated his Auditors with chains of Gold, reaching from his Tongue to their Ears. *Philoxenus*, who wish'd a Crane's neck, and they who live onely to drink and eat, (whereas we drink and eat to live) will give the preheminance to the Taste. Wherefore, in my Opinion, this Question is hard to be decided, because it requires impartial Judges, whose number is very small.

The Second said, That for the right judging of the Cause, all parties ought to be heard. As for the *Sight*, the fabrick of its Organ, so artificially compos'd of Humours and Tunicles, and guarded with Eye-lids and Brows, as so many ramparts for its preservation, sufficiently plead its excellence. But that, of the Couple of Nerves, (for so many onely there are) in the Brain, the first and the second are peculiarly destinated to the Eyes; this shews how highly Nature tenders them above all other parts. Moreover, Vision is perform'd in an *Instant*, and makes present to us those things which are as remote from us, as Heaven is from Earth, and this by *spiritual qualities*; (for the Actions of Bodies are not expedited but in *Time*) this is an other argument of its Excellence. Further, since nothing is more goodly then Light, it seemes to follow that nothing is more excellent then the Sight, whose Object it is. Whence some Philosophers conceiv'd the Soul to have chosen the Eyes for its Mansion. Next then for *Hearing*; this Sense seemes to feed the Soul, or rather to give it birth. For if the Soul be consider'd naturally, its food and life is to understand, reason, and discourse; to which purposes the Hearing alone is serviceable, being for this cause term'd the *Sense of Discipline*. If the Soul be consider'd as it enjoyes a



life more noble then the natural, namely, that of Grace; the Sense of Hearing seemes the Author of this Life. For, the *Just lives by Faith*, saith the Holy Scripture. Now this Faith comes from Hearing, as the Apostle testifies, and not from Seeing; For it is the evidence of things not seen; and where we see, there is no longer Faith. As for the *Smelling*; indeed good Odors recreate the Brain, repair the Animal Spirits, purifie and fit them to assist the Soul when it exerciseth its most noble operations; but the weak Title of this Sense seemes to need a better Advocate then all the rest. The Senses of *Tasting* and *Touching* remain, but both in the same degree, because one proceeds from the other; Gustation being a sort of Contact. In considering of these two Senses, me-thinks, I hear them complain of the ingratitude of Men for placing them in the lowest form, notwithstanding their great service in the birth of Mankind, by Generation, which is a kind of Touching, and in the subsequent preservation thereof incessantly by the Sense of Tasting. And yet since all the commendation of an Instrument is to be measur'd by its end and benefit, (as the praise of a Knife is to cut well) therefore of the Senses, which are the Instruments of the Body and the Soul, the most beneficial (as the Touch and Taste are) must be the most noble: For they are absolutely necessary to our Being, but the other three onely to our Well-being, and that we may live more pleasantly. Moreover, Nature hath so highly esteemed the Sense of Touching and its actions, that she hath found none of them bad or useless, as there is in the other Senses. Pain it self, which seemes the chief Enemy of it, is so necessary, that without the same, Animals (as *Aristotle* testifies) would perish like Plants; for it is like a Sentinel, taking heed that no mischief befall them.

The Third stood up for the Hearing. Sounds (said he) are of that efficacy and power, that amongst the Objects of the Senses, they alone make the Soul take as many different postures as themselves are various. The sound of the Trumpet, or a warlike Song, animates and puts us into fury; change the Tune, and you make the weapons fall out of the hands of the most outrageous. Devotion is enkindled by it, Mirth increas'd; briefly, nothing is impossible to it. Its action is so noble, that by it we receive the notices of all things; in which regard the Ear is particularly dedicated to the Memory: Hence also speech is more efficacious, and makes greater impression upon the Mind, then converse onely with dumb Masters, or the contemplation of things by help of the Sight. And the structure of its Organ, both internal and external, contriv'd with so many Labyrinths, a Drumb, a Stirrup, an Anvil, a Hammer, Membranes, Arteries, and Nerves, and so many other parts fortifi'd with strong battlements of Bones, is a sufficient evidence of its nobleness.

The Fourth fell into commendation of the Eyes, which are the windows at which the Soul most manifestly shews her self,  
and



and is made most to admire her Creator; but he added, that many times they serve for an in-let, at which the Devil steals the Soul; which a great person complains that he lost by his Eyes. I should therefore attribute (said he) the preeminence to the Touch, as more exquisite in Man than in any Animal, and consequently most noble, because found in the most noble substance. For 'tis probable Nature gave Man, by way of preeminence, the most noble Faculties not onely in the Soul, but also in the Body. Now other Animals excell us in the other Senses; the Dog, in Smelling; the Ape, in Tasting; the Hart, in Hearing; and the Eagle, in Seeing.

The Fifth argu'd, in favour of Hearing, alledging that a Man may attain Knowledge without Sight; and that upon observation, Blind people have better Memories and Judgements than others, because their Souls being less taken up with external actions, become more vigorous in internal operations; for that their Spirits are less dissipated. Upon which consideration, a certain Philosopher thought fit to pull out his own Eyes, that so he might be more free for contemplation, and the study of Wisdom. But without the Hearing, it is impossible to have the least degree of Knowledge in the world, not even so much as that of talking familiarly to little Children. For one deaf by Nature is likewise dumb, and by consequence altogether useles to humane society; yea, if we take *Aristotle's* word for it, he is less than Man. For Man (saith he) deserves not that name but inasmuch as he is sociable; and such he is not, if he be unable to express his conceptions, which cannot be done without speech. Of which speech the Hearing being the cause, the same is also the cause that he is capable of the denomination of Man. And being thereby differenced from Brutes, it follows that it is the most noble piece of his accoutrements.

The Sixth said, If Nobility be taken for Antiquity, the Touch will be the noblest of the Senses; because it appears the first and the last in an Animal. Moreover, it is design'd for the noblest End, to wit, Propagation, by which the individual makes it self eternal; and which is more, it comprehends under it the Taste, the Hearing and the Smelling: For we cannot Taste, Hear, or Smell, unless the species actually touch the Tongue, the Drum of the Ear, and the Mammillary Processes. Add hereunto, that Utility being the Note of Excellency, as is seen in State Policy, and the Art Military, the Touch must be the most excellent; since it serves for Eyes not onely to the Blind who guide themselves by groping, but also to some Animals, as Snails, Moles, and also all Insects, who make use of their horns and feet as dextrously as others of their Eyes.

Upon the Second Point it was said; We here wanted some Priests of that God of Laughter, to whom, as *Apulienus* (in his *Golden Ass*) relates, the Inhabitants of the City of *Hypate* cele-

II.  
Of Laughter.



brated yearly a Feast, at which himself was made a Victim. There are few but have read what Laughter he caus'd, when defending himself against the charge of Murther he found that the three Men whom he thought he had slain were three leathern bottles; and for his reward he receiv'd this promise, That all should succeed to his advantage. Indeed Fortune seems to favour Laughers; whereas here accusers and male-contents readily find new causes of dissatisfaction and complaint. Whence possibly arose the Proverb, which saith, That when things go well with a Man, He hath the Laughers on his side. This Goddess Fortune seems to be of the Humour of Women, (in whose shape she is pourtray'd) who rather love merry persons than severe. Yea, generally, all prefer a jolly Humour, and a smiling Face, before the solemnness and wrinkled brow of the Melancholy; which you may daily observe from Children, who avoid the latter, and readily run to the former, as it were by instinct of Nature. The Latin Distick saith, That the Spleen causeth Laughter; possibly because it serves for the receptacle of Melancholy which hinders it; just as white Wine, having more lee or sediment at the bottome than Claret, retaineth less thereof in its substance, and is consequently more diuretical.

*Splex ridere  
facit.* —

The second said, That the first rise of laughter is in the *Phancy*, which figuring to it self some species not well according together, represents a disproportion to the Intellect, not wholly disagreeable, for then it would displease, but absurd, new, and unordinary. Then the Judgement coming to conjoyn those disproportionate species, makes a compound thereof; which not agreeing with what was expected from them, the Judgement cannot wholly approve of the same by reason of the disproportion, nor yet wholly reject it, by reason of something which pleases it within. From this contest ariseth a fally of the Faculty, which during this contrariety, causeth contraction of the Nerves. Which if it be but small, it produceth onely smiling; but if it be violent, then by the confluence of the Spirits it causeth loud laughter. Now that Laughter is seated in the *Imagination* appears hence, that if we have heard or seen some ridiculous thing, we many times laugh at it, though the Object be not present. 'Tis also Disproportion that makes us laugh, for we do not so when we behold a great Beauty; but we do so when we look upon some odd ill-contriv'd countenance, or when we find little sutableness between the Objects which are represented to us; as an Old-man making Love, a huge Hat upon a small Head, one intending to make a graceful Reverence, or cut a fine caper and falling all along; in brief, every thing that is said or done incongruously besides our expectation; especially if no other more violent Passion interpose, as Fear, Respect, and Pity, which suppress Laughter. We laugh at a Man that falls down, but should he break his neck with the fall, our Laughter would give place to Compassion. In fine, it appears that there is made a re-  
traction



traction of the Nerves during Laughter; for we see a Convulsion causeth the same motion of the Muscles of the Face that Laughter doth; whence cometh that malady which is called *Risus Sardonicus*, in which, by the retraction of the Nerves towards their Original, the Patient seemes to laugh as he dyes.

The Third said, He knew not whether of the two had most reason, *Democritus* the Laugher, or *Heraclitus* the Weeper. For though the Faculty of Laughing be peculiar to Man, and inseparable from Reason, yet immoderate Laughter is as unacceptable as continual Tears. And whereas we read in the Holy Scripture that our Lord sometimes wept, but not that he ever laugh; this may be resolv'd, That nothing was new to him: The same being recorded of Heathens, so stay'd and reserv'd that they were never seen to laugh; as *Crassus*, *Cato* the Censor, *Phocion*, and some others. There is more difficulty in stating the Cause of Laughter. *Aristotle* attributes it to the Diaphragme which is dilated by heat. But seeing we laugh less in a Fever when the Diaphragme is most heated, it is certain, either that every heat of the Diaphragme doth not produce this effect, or some other cause must be joyned with it. Which I conceive to be an impressiion made in our Senses, and by them in our *Phancy*, of some agreeable, unusual, and un-foreseen Object, when the same slips into it unawares. Which Object, exciting Joy in us by the Dilatation of the Spirits, which is made first in the Arteries of the Brain, and thereby insinuated into these of the Heart which opens to that Joy; those dilated Spirits swell the Blood in the Veins which accompanies them; so that not being containable in their own place, the Veins and Arteries swell till they make a reflux in the Brain, Diaphragme, Lungs, Face, and all the parts of the Body, where they cause the concussion and agitation observ'd in excessive Laughter, and sometimes Tears, by the compression of the Brain; whilst it is not possible for any to check the eruption, what ever respect be presented to them; yea, sometimes the Spirits are so rarifi'd that they evaporate, whence follows sudden death; as it befell *Chrysippus* of old, who seeing an Ass eat figgs at the end of his table, fell into so vehement Laughter that he dy'd immediately.

The Fourth said, Laughter is a motion of the Body which follows that of the Soul. Its Object is a sudden Joy surprizing us, as a pleasant word after a serious discourse. The scorn we make of any one causeth Laughter likewise; because Contempt is a kind of Anger made up of Pleasure and Grief. When the Pleasure happens to be greater then the Grief, (as it happens when our Enemy is so weak that we can be reveng'd on him when we list) this contentment causeth us to laugh. And hence it is that Sleighting is more offensive then Hatred alone. *Joubertus* thinks, Laughter is excited when Pleasure expands the Heart, which by that dilatation gives motion to the Diaphragme, and this consequently draws the Muscles of the Lipps. *Aristotle* saith, that



that by tickling a motion is caused in the Spirits, which go and come to the place where the Man feels the Pleasure; which Spirits passing and repassing light upon the Nerves, who being too sensible and solicited by the continual motion and agitation thereof, endeavour to drive the same away; and to that purpose contract themselves, and draw unto themselves the parts into which they are inserted. Hence, in a great Laughter, a Man is forc'd to compress himself, and the sides ache with much laughing, by reason of the tension of the Muscles and Nerves, which are most agitated in that place. Wherefore, in my judgement, Laughter is caus'd in this sort. The sudden Pleasure or Titillation excites a motion of the Spirits, which being very subtil are easily carry'd up to the Head; there their agitation and motion importunes the Nerves and the Brain, so that in the midst of this Pleasure there is caus'd a kind of Convulsive Motion. And for that this agitation is chiefly inward, therefore the internal parts first feel the effects of that gentle Convulsion: the Diaphragme being more pliant, and receiving more Nerves of the sixth Conjugation, is agitated the most vehemently. In profuse Laughter the Nerves of the whole Body sympathize with this disposition of the Brain, their Common Original; which being importun'd by those Spirits, (who, though but *natural*, are yet able to incommode the same by their too great agitation) it contracts it self to be discharged of them, attracting the Nerves to it self as much as it can; whence proceeds this kind of Convulsion.

The Fifth said, That the cause of Laughter is two-fold; namely, its *Object* which is of great latitude, as good news, unexpected joy, which it is impossible to receive without laughing; and its *Subject*, which is indeed the Diaphragme; for they who are wounded in that part seem to dye laughing, as *Hippocrates*, in the seventh of his *Epidemics*, observes to have befallen one *Plychon* for the same cause: And this is no otherwise then as a certain kind of *Ranunculus*, (an Herb, we call *Crowfoot*) being eaten causeth loss of the Spirits, and by the contraction of the Lips represents the Convulsion which is made during Laughter.

## CONFERENCE XXV.

I. *Of the Diversity of Countenances.* II. *Whether Man or Woman be the more noble.*

I.  
Of the Di-  
versity of  
Countenances

Identity is so disagreeable, that in all the objects of the Senses it displeases us. Our Taste is glutted with alwayes eating the same Bread. The most excellent Odour, at length, causeth the Head-ake. To look too wistly upon the same object, or to be too long together beheld by the same Eye fixed upon us, is troublesome



troublesome. The Ear is tyr'd with twice hearing the same Tune, and being continually struck upon by one and the same discourse, how excellent soever it be. The Touch, the grossest of all the Senses, is weary of one and the same temper of Air; whence is drawn a certain consequence, That the people under the Equinoctial, or other Climate alwayes like to it self, are sooner weary of living, then others who have not leasure to be tyr'd with one season because another soon succeeds it. On the contrary, we see variety of Food raiseth the languishing Appetite; the diversity of Odors which succeed one another, delight the Smelling. Nothing is more acceptable to the Sight then a Meadow checker'd with several colours, or a garden variegated with Tulips and other Flowers, of all sorts and hues which the Spring discloses. Harmony proceeds from the variety of Notes; and the Orator who would move his Auditors must not speak too long upon the same thing in the same words; he must alter his gesture and voice, and the pauses which distinguish his action are very serviceable to that purpose. But as there is nothing more swift then the Sight, so no Sense is sooner weary with the semblance of its objects. The reason whereof is this, being a most active sense, its operation doth not make it self perceiv'd by the Eye, but by the changing of the object. So that when it beholds alwayes the same thing, it seemes to it self as if it beheld nothing. Look upon the Earth all cover'd with Snow, or a Chamber wholly hung with Black, or some other single colour, the Sight is offended therewith: If Green offends us less, it is because it is compounded of Yellow and Blew, and the best blended of all the Colours, and as such reunites the visual rayes between its two extremes; yet it affordeth nothing near the delightfulness that ariseth from the variety of Tapistry. I conceive therefore that the chief end of the diversity of Countenances, is Distinction, and lest the same thing should betide Women that did *Alcmena*, in *Plautus*, who suffer'd *Jupiter* to quarter with her, because she took him for her Husband *Amphitryo*. But the subordinate end is the Contentment which Man finds in this variety. As for other causes, the *Efficient* indeed doth something; for Children commonly resemble their Fathers and Mothers: But the *Material* contributes very much hereunto; so that they who (for example) are begotten of a Masculine and Feminine Geniture, wherein the sanguine temper is equally prevalent, resemble one another, and have a ruddy and well shap'd Countenance. But because 'tis next to impossible, that the said temper should be equally found in two different subjects, thence ariseth the variety of Complexions and Lineaments.

The Second said, There is as great variety in all natural things as in Faces, though it be not so remarkable to us. For we see Birds and Beasts distinguish one another very well. Now the *Final Cause* of this Diversity seemes to me to be the ornament of the World, which otherwise would have nothing less then the

*Mundus* κόσμος, *quasi*  
κόσμος  
*ornatus*.

import-



importance of its name. Musick and Painting receive graces from things which in reality are nothing, namely, Pauses, which are onely privations of Notes; and shadows, which are defects of light. This diversity of Visages, which ariseth from that of the persons and their inclinations, is as well contributory to the splendour and beauty of a state as of nature. For if all things were alike, there would be a confus'd identity, and general disorder, not much different from the ancient Chaos. Nothing would be acted in Nature; for action is not between things like, but between things contrary. Nor would there be Beauty in the Countenance, if there were not diversity in the parts; but all the Face were Eye or Nose. For Beauty ariseth from Proportion, and this from the correspondence of many different parts. Very little would there be amongst Men, if all were alike; there being no Beauty when there is no deformity whereunto it may be compar'd; and who so takes away Beauty takes away Love, of which it is the foundation. This divine link of humane society would be destroy'd; for Love is a desire to obtain what we want, and another possesseth; and therefore it cannot exist but between persons unlike. Nor could a State consist longer; because all Men being externally alike, would be so internally too; all would be of the same profession, and no longer seek to supply one anothers mutual necessities. Now this diversity of persons proceeds from the divers mixture of the four Humours; which being never found twice temper'd in the same sort, (each one having his peculiar constitution, which the Physitians call *Idiosyncrasie*) they never produce the same person twice, nor consequently one and the same surface, or external shape, alike. If the Matter design'd to constitute and nourish the bones be in too great quantity, the Man is born robust, large, and bony; if it be defective, he becomes a dwarf and a weakling. Again, this Matter, according as it carried to every bone in particular, gives a differing conformation to the same, which is also derived to the Muscles spread over those bones from which they borrow the external figure which they communicate to the skin.

The Third said, He found two Causes of the Diversity of Countenances: One in Heaven; The other in the Heads of Women, namely, in their Imaginations. Heaven is never found twice in the same posture, by reason of the manifold Motions and Conjunctions of the Planets, and yet 'tis the Sun and Man that generate a Man; and what is said of the Sun, ought likewise to be understood of the other Cœlestial Bodies. It is necessary then that this variety in the Cause produce also variety in the Effect. Hence it is, that Twins have so great resemblance together, as having been conceiv'd and born under the same Constellation. As for the Imagination, 'tis certain, that of the Mother which intervenes at the time of Conception, more powerfully determines the shape and colour of the Fœtus than any other Cause; as appears by the marks which Infants bring with them from



from their Mothers Womb ; who well remember that such things were in their Phancy, and that they had a vehement apprehension of the same. So that as many different Imaginations as Women have when they conceive, make so many Countenances and other parts of the Body different.

Upon the Second Point it was said, That in times of old there was found at *Rome* a Widower that had buried two and twenty Wives, and at the same time a Widow that survived her two and twentieth Husband ; these two the people of *Rome* constrain'd to marry together, after which, both Men and Women awaited which of the two would dye first ; at length the Woman dy'd first, and all the Men, even to the little Boyes, went to her interment, every one with a branch of Lawrel in his Hand, as having obtain'd the victory over that Sex. This Question of the nobleness and dignity of the one above the other, is of greater consequence then that other, in which not onely Women very frequently get the better, there being more old women then old men, through the sundry dangers whereunto men are expos'd, and from which women are exempted ; but also Stags and Ravens, which live hundreds of years, much surpass either of them. But one of the greatest difficulties arising in the discussion of this Controversie, is, that there is no Judge found but is interess'd in the Cause : Do not think that the determination of this Point is of little importance. For we should have none of those dismal feuds both in high and mean families, did not women go about to command over men instead of obeying them. Now whether the business be fairly arbitrated, or whether it be yielded, out of complacency to that Sex, which loves to be commended, and out of pity its frugality and weakness ; upon examination of the reasons of either side, I find it safer to suspend my judgement, that I may neither betray my own party, nor incense the other ; which, they say, is not so easily reconciled as it is offended.

The Second said, That the courtship and suing which Men use to Women, is a tacite but sufficient argument of the esteem wherein they hold them ; for we do not seek after a thing which we under-value. But the præcellence of Women above Men is principally argu'd from the Place, the Matter, and the Order of their Creation. For Man had not the advantage to be created in the Terrestrial Paradise, as Woman had, who also was produc'd out of a more noble matter then he ; for he was made out of the Earth, and she out of one of the Man's ribbs. And as for the Order of the Creation, God, in the production of Mixt Bodies, begun with the meanest things, and ended with the noblest. He first made the Earth and the Sea, then Plants, Fishes, and the other Brutes. After which, he created Man, as the Master of all things ; and lastly, Woman, as the Master-piece of Nature, and the Model of all Perfections, Mistress of Man, stronger

II.

Whether is  
the more  
noble, Man or  
Woman.



then he, as the Scripture saith; and consequently Mistress of all the Creatures. Moreover, there is no sort of Goods but are found in a higher degree in Woman than in Man. For as for the Goods of the Body, the chief whereof is Beauty, Men have therein utterly lost the cause; which they will be as little able to carry in reference to the Goods of the Mind: For the same are found more vigorous, and attain sooner to maturity in Women, who, upon that account, are by the Laws adjudg'd *Puberes* at twelve years of age, and Boyes not till fourteen. They commonly perform more actions of Virtue than Men; and indeed they have more need thereof, to withstand the assaults continually made upon their Chastity, which is not too often found in the other Sex. They are acknowledg'd by all, to be more merciful, faithful, and charitable than Men; so *Devout*, that the Church (which cannot err) termes them by no other name; and so patient, that God hath judg'd them alone worthy to carry their Children nine moneths in their bellies; no doubt, because Men had not Virtue and Resolution enough for that office. The Poets never feign'd but one *Jupiter*, that was able to bear an Infant in his Body, though it were but for a few moneths. In fine, there is no Science or Art in which Women have not excell'd; witness the two Virgins, *Desroches*, and *de Gournai*, the Vicountess of *Auchi*, and *Juliana Morel*, a Sister Jacobine of *Avignon*, who understands fourteen Languages; and, at *Lyons*, maintain'd Theses in Philosophy at the age of thirteen years; so also of old, *Diotima* and *Aspasia* were so excellent in Philosophy, that *Socrates* was not asham'd to go to their publick Lectures; in Astrology, *Hipatia* of *Alexandria*, the Wife of *Isidore* the Philosopher; in Oratory, *Tullia*, the Daughter, and doubly heiress of *Cicero*; and *Cornelia*, who taught Eloquence to the *Gracchi* her Sons; in Poetry, *Sappho*, the inventress of Saphick Verses; and the three *Corynnæ*, of whom the first overcame *Pindar*, the Prince of Lyrick Poets, five times; and in Painture, *Irene* and *Calypso*, in the dayes of *Varro*. If there have been Prophets, there have also been Prophetesses and Sybils; yea, they were Virgins, of old, that render'd the Oracles at *Delphos*. In brief, if there have been war-like Men, there have been *Amazons* too, who have shew'd that Valour is not solely Masculine. And, in our dayes, there have been found Maidens that have fought very courageously, whose Sex was not known till they were stript after they had been slain in battle. But these Feminine Virtues are not so much celebrated as those of Men, by reason of the Envy which they bear to the Sex, having subjected the same to such a pass, that they are enforc'd to support all our defects. Though indeed, Women may say to Men as the Lyon did to a Man, who shew'd him the picture of a Man killing a Lyon; If Lyons (said he) were addicted to painting, you would see more Men kill'd by Lyons, than Lyons by Men. If Women had had the making of Laws and Histories, you would see more Virtues exercis'd by Women than by Men. The



The Third said, That although none but Men are at the ventilating of this Controversie, yet Women ought not to alledge that it is easie to commend the *Athenians* in the City of *Athens*; since God himself hath pass'd a Decree upon them in these words, *The Woman shall be subject to the Man*. And 'tis to no purpose to say, that it was otherwise before the first sin, and that subjection was impos'd upon the Woman for a punishment; seeing the punishment of the Serpent, That he should creep upon the Earth, doth not presuppose that he had feet before he caus'd Man to sin by the intervention of his Wife; but indeed, God converted that into a penalty which before was natural unto him. The same ought to be said concerning the Woman, who was no less subject to the Man before then after his sin. Moreover, after God had taken the Woman out of *Adam's* side, (whence, they say, it comes that their heads are so hard) he did not say that she was good, as he had pronounc'd all the rest of his Creatures. And to get *Adam* to marry her, there was no other expedient found but to cast him into a sleep; no doubt, because, had he been awake, he would have been very much puzzl'd to resolve upon it. So that they who considering, on one side, the usefulness of that Sex for the preservation of the species of Men, and on the other, the mischiefs whereof it is the cause, have not ill determin'd when they term'd Woman a *Necessary Evil*; to which Men are addicted, by natural instinct, for the general good, and to the prejudice of the particular; just as Water ascends upwards, contrary to its own nature, for the eschewing of Vacuity. Woman is an imperfect Animall, whom *Plato* doubted whether he should not rank amongst the irrational, and whom *Aristotle* termes a Monster; they who treat her most gently, stile her a simple Error of Nature; which through the deficiency of natural heat, could not attain to the making of a Male. Women big with Female Children, are more discolour'd, have their taste deprav'd, and usually lift up their left leg first, as it were for an evidence of that sinister conception. In the Old Testament they who were deliver'd of a Female were unclean for sixty dayes; but if of a Male, but thirty. The Male is fully form'd in thirty dayes, but the Female onely in forty two. The Males have life at the seventh moneth, but Females not till the ninth; as if Nature hid her fault as long as she could. The Females have less vigour in all their actions, because less heat; which appears in that they are never ambidextrous, as Men oftentimes are. Now, if in some species of Animals, the Females have the advantage above Males, as Tygresses, Lyonesses, and She-wolves, it is in fierceness; and therein we also yield to Women. But what more competent Judge amongst Men can they find, then he who try'd so many, *Solomon*, who inquires, *Who can find a Wise Woman?* And who, after he had compar'd them to the bottomeless pit, concludes that all wickedness is supportable, provided it be not the wickedness



edness of a Woman; yea, that the wickedness of a Man is better then the goodness of a Woman.

*Ecclesiasticus.*

The Fourth said, Every thing is esteemed according to its Author, Structure, and Composition, the means it makes use of, the manner how it employes the same, and its end. Now Man and Woman having the same Author, namely, God; and being compos'd almost of the same parts, it remains to inquire what means both the one and the other makes use of for attaining their end, which is Happiness. It is certain that the being either Man or Woman doth not make either of them good or bad, handsome or deform'd, noble or infamous, happy or unhappy. There are found of both sorts in either Sex. As, to begin in Paradise, the eleven thousand Virgins alone shew that the Feminine Sex hath as good a share therein as Men. In Thrones, *Semiramis*, *Thomiris*, many Queens and Emperesses have manifested, that Women as well know how to command as Men. *Judith* cutting off the Head of *Holofernes*; and the Maid of *Orleans*, in the dayes of our Fore-fathers, have shewn that Men alone were not courageous, and fit for Martial Atchievements. In brief, there is no kind of performances, in which examples are not to be found both of Men and Women, that have acquitted themselves happily therein. In Oeconomy, or the management of a Family, if some Men are the Masters, there are found Women too that have the supremacy, and that in such sort, that the Men dare not complain. Wherefore they who seek the cause of the nobleness or abjectness of Man and Woman in the Sex, seek a cause where it is not. 'Tis not the being a Man or a Woman that makes noble or ignoble; 'tis the being an excellent Man, or an excellent Woman. For as they are mistaken who impute some Vice or Virtue to a whole Province, because to be vicious or virtuous are personal things; the same ought to be said concerning Man or Woman, who are Citizens of the whole world; either of whom taken in general hath nothing in themselves but what is very decorous, Good and perfect, and consequently very noble; as proceeding from an Author who communicated to them what perfection and nobleness was respectively requisite. If there be any defect, it proceeds from the individual person, and ought no more to be attributed to the Sex then to the Species.



## CONFERENCE XXVI.

I. *Whether it be lawful for one to commend himself.* II. *Of Beauty.*

IF things could speak, or if Men spoke alwayes of them as is fitting, the Question would be needless; but for that neither the one nor the other are to be expected, it is reasonably demanded, whether ever it be lawful to supply this default our selves. Three sorts of persons there are, each of a different opinion touching this Subject. The first prize and respect themselves so highly, that as one of the great Wits of these times said to a certain Author, who would have had more praise had he given himself less; They catch cold with too much speaking to themselves bare-headed. The Second, having heard that Glory is a shadow that follows those that flie it, affect blame with so palpable design, that it is plainly seen that they fall down onely to be lifted up; like those brides who would not hide themselves, if they knew that they should not certainly be found out. The Third observing how odious self-praise is to all the world, never attribute any to themselves, and cannot so much as endure to hear themselves commended, accounting it no other then flattery. The first maintain, that they who say that a Man must not praise himself, establish a Maxime, to which none obey. Do not great Captains, say they, succesfully animate their Souldiers by their own commendations? Doth not the expert Physitian preserve his own good reputation together with the health of his Patient? Do not they who make Panegyricks for others, find their own in the same? Doth not the Excellent Preacher preach his own Doctrine and Eloquence together with the Gospel? Doth not the acute Advocate argue as well for his own reputation, as for the carrying of his Clients Cause? Then for Arts and Trades, we see he is accounted the best Trades-man that ha's the nimblest Tongue in commending his own wares. Moreover, he that asks an Almes by a sign, asks it no less then if he spoke; and consequently as many wayes as there are to signifie any thing, the same are as so many words; and although the one are vocal, and the other mute, yet they equally signifie: Whence it follows that a Man is as little to blame in speaking well as in doing well. He that hangs a bush at his door doth no less say, I have Wine to sell, then if he proclaim'd it. A fair Woman who exposes her self to the view of every one, and a Painter who hangs forth his pieces to sell to passengers, prize and commend themselves more then if they spoke; and yet neither is censur'd for so doing. In brief, as we may blame our selves without speaking, by doing some evil action; so Men, in effect, commend themselves by performing virtuous

I.  
*Whether it be  
lawful for a  
Man to  
commend  
himself.*



virtuous actions. The Second, who contemn themselves incessantly, that they may be the more esteem'd by others, find nothing that more removes the mask of their Hypocrisie, then the assent of others to what they say; and indeed they are no less unacceptable and tedious then the former. But the last please much more; justifying their Principle by the enumeration of all Professions, in which all that excell abhor this vanity, which is odious to all the world. War requires great deeds and few words. Humility, the prime Virtue in Divinity, cannot consist with boasting. A good Physitian cannot hear the relation of his great cures without blushing; and 'tis the property of a Mountebank to publish his own Atchievements in that kind. *Plutarch*, in an express Treatise, renders the reasons hereof. 1. Because a Man must be impudent that can commend himself, instead of being asham'd to hear his own praises. 2. Because it is injustice for a Man to give that to himself, which ought to be expected from others. And, 3. Because self-praise exercises a kind of Tyranny over the hearer, and is without effect, not obliging him to belief.

The Second said, Two things displease us in the praise that any one gives himself. First, the seeing a Man prefer'd before, or at least equaliz'd to, our selves, whom we alwayes account most worthy of praise. And Secondly, the seeing a Man make himself judge in his own cause. And hence arose a common Proverb, Praise hath an ill savour in a Mans own mouth. And when the Comœdian would decypher the two most ridiculous personages of his Scene, *Chremes* and *Thraso*, he makes them weary the hearers with repetitions of their own commendation; which ought to have no other end but the Reward of him to whom it is given, or the exciting of others to Virtue by his example. Now it is depriv'd of both these effects, when it proceeds from our selves. For that which comes from our selves cannot be call'd Reward, and consequently others can draw no example from it, which may excite them to Virtue. If Poets praise themselves, they are excus'd by the Poetical Licence which gives them permission, as well as Painters, to feign and attempt what ever they please; and yet the Prince of Poets, *Virgil*, never commended himself. It was not by the praise which he gave himself that *Cicero* acquir'd the title of Father of Eloquence; on the contrary, his Consulship, so often deprecated in his writings, is with some reason term'd the Spot or Blemish of his works. In brief, they who commend themselves seem to fore-judge that they look not for commendation from others; either for that they deserve none, or else for that they accuse the rest of Men of ingratitude towards them. And in either case, 'tis no wonder if they be sleighted and ill will'd by others.

The Third said, That he who commends himself is not to blame, provided he say nothing but what is true; because words  
being



being the images of actions, it is unjust to require a man to make the original, and then forbid him to draw copies of it, such as are the commendations which typifie vertuous actions. And it seems to be the property of the vicious to bear envy against them thereupon, because they cannot attain to the same perfection; as an old woman beholds with jealousy the exquisite portraict of some young Beauty. True it is, as *Alexander* said, it was a great happiness for *Achilles* to find a *Homer* to commend him. But when the unhappiness or ingratitude is such, that a goodly action falls into oblivion unless it be recounted by its author, who knows it better then any other; it is not reasonable for virtue to be depriv'd, through such defect, of its only guerdon and aliment, which is praise. So a Father wonderfully extimulates his children to virtue by representing to them his own brave actions past. Yea it seems, that being his children have an interest in his reputation, he cannot omit the recital of what he hath done praise-worthy, without wronging them.

The fourth upheld the same Opinion, by alledging that a wise man may commend himself without blame, since he is so impartial that he doth not consider himself as himself, but as he would do another man, whom he could not without injustice deprive of the commendation merited by him. And this is agreeable to a precept of nature, which enjoyns the rendring to every one what appertains to him.

The Fifth said, to commend one's self meerly for the sake of self-praise is a vicious extremity; but sometimes to commend one's self in another, or to make use of the relation of our own commendable actions, as an Apology to oppose to the contempt, or detraction of our enemies, is a thing not only allowable, but also practis'd by the most eminent and holy personages. So *S. Paul* finding himself despis'd, boasted that he was noble, and a Citizen of *Rome*, that he had studied much, and that God had imparted to him his highest mysteries. For in this case we are in a manner oblig'd to praise our selves, by the Law of Nature, which renders our defence just. Therefore as he were a fool that should fence all alone in the open street, and a coward that should not defend himself when provok'd; so he that defends himself well when he is assaulted, doth not only provide for his own safety, but gets the reputation of a man of courage, as he also doth who commends himself when he is despis'd. Yet I would require thus much moderation in the praise which an injury extorts from our own lips, that it extend no further then what is needful for the repelling the offer'd outrage. I would by no means have it affected, as it uses to be by some men, who are glad when they are blam'd, for that they may take occasion to expatiate upon their own praises. For the equitable hearer is indeed on our side, yet he is tacitely disgusted with our vauntings; because men are naturally addicted to contradiction,  
whence



whence their belief (the freest of all the mind's actions) is always less carried thither whither it is endeavour'd to be carri'd with most eagerness and violence. So an honest woman shall by a grave deportment, and a single gesture of slighting, sooner quash an injurious word than another can do by a long Apology of her whole life past. Saving in this case and manner, our proper commendations are no less unacceptable than the blame which we attribute to our selves. He that praises himself is like a painted Face set out to the sight of every one; and he that blames himself resembles a sick person that takes pride in his infirmities true or imaginary, with which himself ought to be concern'd enough, not to trouble others who have nothing to do therewith.

II.  
Of Beauty.

Upon the second Point, it was said that Beauty may, with as much reason, be plac'd among the Transcendents, as (besides Goodness and Verity) Greatness, Duration, Power, Vertue, Knowledge, the Will, and Glory, are plac'd in that rank by *Lullius* and his Disciples. For speaking of accidents, we say a fair largeness, a goodly quality, a handsome resemblance, a graceful action, a becoming endurance or sufferance; and so of the other Categories, which result from Place, Time, and Habit. But it is particularly attributed to Substance. The Angels, Heavens, Elements and mixt Bodies, have all beauty, and so much the more as they are more perfectly mixt; as appears in Gold, Pearls and Jewels, in Flowers, Animals, and principally in Man; who again participates thereof variously according to Sex and Age. For the beauty of a man is other than that of a woman; of a child and a young man then that of an old man. Artificial things have likewise their share therein, when our eyes and judgements are pleas'd with their proportion, or find them conformable to the Model which the Workman propounded to himself. And as in most Sciences and Arts men have phancied to themselves Prototypes and Parallels, to serve instead of patterns and models; in Policy, an accomplish'd Commonwealth, such as *Plato*, *Sir Thomas More*, and some others have delineated; in Physick, a Temperament most perfect and exquisite to a grain [call'd *temperamentum ad pondus*] in Eloquence, a perfect Orator: so they who have undertaken to speak of Beauty have imagin'd a perfect one, which (leaving women to set down the conditions which they require in handsome men) we will make to consist, as to them, in thirty one particulars, which go to the making up of a handsome woman. The 1. of those Points is Youth, which renders even the coarsest animals agreeable. The 2. is a Stature neither too large nor too small. 3. A middle size of corpulency; because too fat or too lean are counted amongst imperfections. 4. Symetrie and proportion of all the parts. 5. Long, fair, and fine hair. 6. A skin soft and smooth, through which appear small veins. 7. A lively



lively whiteness of Lillies blended with Roses. 8. A smooth forehead, pleasingly arched, and always serene. 9. Temples not hollow. 10. Two black lines arch-wise, in stead of Eyebrows. Two blew eyes well set in the head, well open'd and fix'd with a sweet glance. 12. A nose well shap'd and rightly set on. 13. Cheeks a little rounded, making a dimple. 14. A graceful smile. 15. Two lips of Coral. 16. A little mouth. 17. Small Pearls smooth and well ajusted in stead of teeth. 18. A sweet breath. 19. A well tun'd voice. 20. A chin dimpled, somewhat round and fleshy. 21. Ears small, ruddy, and well joyn'd to the head. 22. A neck of Ivory. 23. A bosome of Alabaster. 24. Two snow-balls. 25. A hand white, something long and plump. 26. Fingers ending by little in a Pyramide. 27. Nails of mother of Pearl turn'd into an oval. 28. A gesture free and not affected. 29. Soft and smooth flesh. 30. A modest gate. The last point may be more easily imagin'd then honestly nam'd.

The second said, that Beauty hath no more but an imaginary Being, or, at least, is more in the phansie then in Nature. Which they acknowledge who set conditions for it never to be found in any subject whatever. Moreover, every real Entity, if it fall under the cognisance of the Senses, is conceiv'd in the same manner by all people in the earth, when the Organ is not hurt, the *medium* alike, and the distance equal, and all other circumstances are found the same. Thus Honey is every where acknowledg'd by the same sweetness, and the Sun by the same light. But one and the same Beauty is not conceiv'd in the same fashion, nor esteemed such by all the people of the world; for the judgements thereof are found different, not only according to the diversity of Nations, but also in reference to the same people, yea the same person, at several times. Our ancient *Gaules* wore large foreheads, because in those days they accounted the same handsomest, and we see also to this day old Pictures representing handsome women in that sort; whence arose the reproachful word, *Effrons*, Frontless, denoting one that hath no forehead or shame. At this day women think they cannot have too little, they take so much pains to hide the same with their head-tire, and men, after their example. Much hair is at present recommendable in many places, especially in *France*. The handsomest of the Pagan Deities was call'd *Intonsus Apollo*: And the Scripture principally sets forth the beauty of women by their long hair, without which the comeliest would be terrible. Nevertheless, in the latter ages in *France*, 'twas a shameful thing for men to have much hair. In New *France*, the greatest part of the people wear no hair but on one side. The women of *Camboya* cut off theirs close to their ears. The *Perussians* have none but a lock on the top of the head; and the *Romans* of old ador'd *Venus Calva*: Our Ladies shape their Eyebrows into arches. The Africans paint theirs into the figure of



a Triangle. Some, like an *Aquiline* and rising Nose; yet the flattest are counted most graceful amongst the *Abyssines*. Here eyes pretty prominent and of a middle size are esteem'd; in *China* little eyes are most priz'd. The *Lybians* love a large mouth, and lips turn'd backwards; here little ones are the most commendable. 'Tis one of the most agreeable parts that our Ladies shew; and yet the *Arabians*, esteeming the same indecorous, cover it as carefully as their backside. The *Japonnois* black their teeth; and every where else the whitest are most valued. Our Virgins streighten their bosomes the most they can; on the contrary, the *Æthiopian* women account those the most graceful breasts which they can cast over their shoulders. Youth is elsewhere lov'd; yet in the *West Indies* the oldest women are the handsomest. In *Æthiopia* and many other places the blackest are counted the handsomest; and in painting a Devil they make him all white, as we do black. In brief, there is not one of the assigned Characters of Beauty which is not controverted by some Nation; and therefore there is no reality in it, but it depends upon our Phancie, as Fashions do. What is beauty then? 'Tis (in my judgements) what pleases us. For whatever deformity or defect there be in the thing we love, yet we account it handsome; *Et quæ Balbinum delectat Polypus Agnæ.*

The third said, 'Tis too great a disparagement to the Goods of Nature, to say that Beauty, which is the most excellent of them, is only imaginary; its admirable effects being such that it persuades whatever it pleases; 'tis the surest commendatory Letter, and hath influence not only upon rational souls, but even Elephants are transported with joy (as *Ælian* saith) when they meet a fair woman. And reason tells us that every thing which is goodly is good; because it is desirable, which is the essential qualification of good things. The beauty of the body is not only the token of that of the soul, which seems to be ill lodg'd, when it is found in an ugly body, but 'tis also a sign of the body's health and good constitution. Yea the very beholding of Beauty conduceth to health, and continues it; whence it is that handsome Nurses and Governesses are assigned to Children; because the soul even from the cradle (being a Forreigner and retaining in it self the idea of its Creator's beauty) is marvellously pleas'd at the sight of every thing that approaches that beauty and harmony, and rejoyces at its meeting, acknowledging it her kindred and alley. Moreover, *Plato* saith, that Beauty is produc'd when the *Forme* predominates over the *Matter*, which is of it self foul and deformed. Which he affirmeth to have place also in the beauty of the soul; which he makes to consist in the advantage of the *Intellectual* part, which holdeth the place of *Forme* in man, over the Sensitive, which correspondeth to *Matter*. *Aristotle* will not allow it possible for Felicity to be perfect without the beauty of the Body, which hath sometimes conferr'd



conferr'd the Scepter in elective Kingdoms. And our Saviour, amidst all the infirmities of our nature, caus'd to shine in himself the most perfect beauty that ever was in the rest of mankind. Now several beautiful things gratifie variously. White is esteem'd amongst Northern Nations, because there issues out of white bodies a certain brightness or light agreeable to the eyes of those people. But the same colour loseth that pre-eminence proportionably to a nearer approach toward the South.

## CONFERENCE XXVII.

I. *Whether the World grows old.*II. *Of Jealousie.*

**W**ERE we in those Commonwealths where the voice of the people is admitted, this Question would be very easie to resolve; there being no body but proclaims that the world is declining, and thinks that we are now in the very dregs of Time. 'Tis the ordinary discourse of old men. But possibly herein they resemble the old woman, who when she was grown blind, said the Sky was overcast; or those who sailing from the shore think that the earth retreats back, while 'tis themselves that are in motion. These good people no longer finding the same gust and pleasure in the delights of the world, that they found in their youth, lay the fault upon the world instead of imputing the same to themselves. Indeed their accusation is too old to be receivable, having been from all time, which made *Horace* say, that to represent an old man right, he must be introduc'd praising the time past. Yet we may give their reasons the hearing. They affirm that every thing which hath had a beginning, and must have an end, grows old. That since all the parts of the world are variously corrupted, the same ought to be believ'd of the whole. That as for the Heavens, all the observations of *Ptolomy* are found at this day false, unless they be rectifi'd by the addition of certain motions of Trepidation which cause all the rest to vary. In the Air, the inconstancy of it, and the irregularity of the Seasons makes us not know when we are sure of any; the Spring sometimes appearing in Winter (as at present) and Winter in Autumn. In the Sea, you see it dismembers Provinces, gains and loses whole Countries by its inundations and recessions. And as for the Earth, it is very probably shown that in time it must naturally return to its first state in which it was all cover'd with water, and consequently void of men and most part of animals and plants, which make the three noblest parts of the Universe. For they who endeavour the raising of low grounds know that the same is accom-

I.  
*Whether the  
World grows  
old.*



plift by giving entrance to the slime which the water brings thither, and which gathers together at the bottom; whence it comes to pass that Valleys through which torrents and brooks of rain-water pass, grow hollower daily; the impetuosity of the water sweeping the surface of the earth into rivers, and thence into the Sea. Wherefore though the world should not end by Conflagration, as it must do; since all the rain-waters, those of rivers and brooks go into the Sea, and carry thither with them the upper parts of the Earth, which is that that makes the waters so troubled and muddy, it is necessary that this earth in time fill up the cavities of the Sea, and reduce it to exact roundness; and then the water having no longer any channel must as necessarily cover the whole surface of the earth, excepting perhaps some points of rocks, which will decay and fall down in time, as about fifteen years ago a mountain in *Switzerland* by its fall crush'd under its ruins the Town of *Pleurs*, which by that means made good the importance of its name. And although this may not come to pass till after divers thousands of years if the world should last so long, yet it is not the less feasible, since it is a doing at the present, though by little and little.

Sign. Weeping.

The second said, That since the end of the world is to be supernatural, it shall not proceed from old age; that though the earth were all cover'd over with waters, yet the world would not perish for all that, since the Elements would subsist; yea the same earth and the winds by succession of time would come to imbibe and dry up those waters, and so again discover the face of the earth. That if one of the Elements be diminish'd, another increases; if the water evaporate, the air is augmented; if the air be condens'd, it addes to the water, and so the world cannot fail by all the alterations and changes which happen in simple and mixt bodies. For its order consists in the alternative succession of various dispositions (and not in one sole disposition) like a circle which being finite in its parts is infinite in its whole. Moreover, if the world perish, it must be either by the annihilation of its whole, or of its parts; or else by their transmutation into some matter which cannot be part of the world. Not the first; for there needs no less a miracle to annihilate then to create; and therefore nothing is annihilated. Not the second; for mixt bodies cannot be chang'd but either into other mixt bodies or into the Elements; now these are transmuted one into another; wherefore in either case they are still parts of the world. The most active of the Elements, Fire, without the miracle of the last conflagration, if you consider it in the Sphere which some have assign'd to it, it cannot burn the rest; for should it act in its own Sphere, which it doth not, it would at length be extinguish'd for want of air, into which consequently part of it would be converted: or if you place it in the subterranean parts, the vapours and the exhalations which it would



would raise from the Sea and the Earth, being resolv'd into water and air, would always preserve the being of those Elements. Moreover, the world would not serve at the day of judgement (as *Philo* the Jew saith) for a Holocaust to its author, if it were then found defective in any of its parts.

The third said, If you take the world for all the inferiour bodies contain'd under the concave of the Moon, it is certain that it changeth. For the Heavens are not alter'd according to their substance, though they be according to their places. But it is impossible that the Elements acting so powerfully one against another by their contrary qualities be not at length weakned, and their activities refracted and impair'd, and particularly the earth wherein those subterranean fires do the same thing that natural heat doth in animals when by the consumption of their *radical humidity* it makes them grow dry and old. External Agents (as the Air, and the Celestial Bodies, which in time undermine Palaces of Marble, Brass and other bodies) contribute greatly to this alteration of the earth, which is the mark and but of actions of the superiour bodies, by whom it suffers incessantly. This declination is observ'd in Plants, which had greater vertues in times past then they have at the present (as it is found, amongst others, in that Antidote made of tops of *Rue*, a Nut and a Fig, wherewith *Mithridates* preserv'd himself from all poysons, and which is now out of credit) but much more in man then other animals. For besides the diminution which befalls him as a mixt body, because he draws his nourishment from the substance of plants and animals, he hath besides in himself a double ground of this decay of his strength, every thing partaking of nature and its food. Hence it is that we are much more short-liv'd then our fathers of old, who in the flower of the world's age (to speak with *Plato*, who makes it an animal) liv'd almost a thousand years; and since the Deluge by the corruption which its waters overflowing the earth caus'd in the whole Universe, they liv'd six hundred years, but at present few attain to eighty: Nor do we see any Gyants now a days, though they were very frequent in old time. Men's minds likewise have a great share of this deterioration, in the exercise of vertues and arts. Besides, that there was never so great a multitude of Laws and Ordinances, which are certain evidence of the depravation of manners.

The fourth said, Besides that 'tis dubious whether the years of our first Fathers were of equal length with ours, the cause of their long life may be attributed to a special priviledge of God, to the end they might by their long experience invent Arts and Sciences, and people the world. Moreover, 'tis above 4000 years since the term of 70 and 80 years became the common standard of humane life. Our age is not more corrupted then the first, made infamous by Fratricides, Sodomites, Incests, Treasons, and such other enormous sins, so much the more detestable



testable in that they had no example of them, as their posterity hath had since. And as for the inferior bodies, since their actions are at present altogether the same with what they perform'd in the beginning of the world; the Fire (for example) not burning less, nor the Water cooling less, then in *Adam's* time; it must be concluded that they are not chang'd, but remain always in the same state.

The Fifth said, That as in the *Microcosme* we may judge of the corruption of the Body by the least alteration of its parts, and fore-tell its death by the disorder observ'd in the most noble; so we may make the like Judgement in the *Macrocosme*, in which we see no Mixt Bodies, but what are corruptible. For things are no longer then they act, action being the measure of their being. And therefore seeing nothing can act perpetually, because the virtue of every thing is bounded and finite, nothing can be perpetual. As Knives, and the like instruments, are blunted with much cutting; so the qualities incessantly acting must of necessity be weakned, and at length become impotent. But the surest sign of the worlds corruption is the annihilation of corporeal formes, the noblest parts of the universe. For as for spiritual formes, when they are separated from the Body they are no longer consider'd as parts of the world.

The Sixth confirm'd this opinion by the abundance of new diseases sprang up in these last Ages, and unknown to the preceding; as the Neapolitane Malady, the Scurvy, and sundry others, which cannot proceed but from the corruption of Humours and Tempers, and this from that of the Elements.

The Seventh said, That the world is so far from growing worse, that on the contrary it becomes more perfect; as 'tis proper to things created from a small beginning, to increase, and at length attain their perfection; which the world having attain'd doth not decline, because it is not an organiz'd body, whose property it is to do so after it hath attain'd its State. This is visible in Metals, and particularly in Gold, which the longer they remain in the Earth the more concoction and perfection they acquire. Moreover, the Wits of Men are more refin'd then ever. For what could be more ignorant then the Age of our first Parents, for whom God himself was fain to make Clothes; those of their own making being onely fig-leaves. In the Ages following, you see nothing so gross as what was then accounted the highest degree of subtlety, as the Learning of the Rabbins among the Jews, and the Druids among the Gauls; the best skill'd of whom might come to school to our Batchelors. But their gross ignorance in Handy-crafts appears, amongst others, in our *Flowers de Luce*, the figure whereof, stamp'd on their Coin, resembles any thing rather then a *Flower de Luce*.

II.  
Of Jealousie.

Upon the Second Point it was said, That Jealousie is very hard to be defin'd. If you rank it under the Genius of Fear, how comes



comes it to make Rivals so venturous in attempting and executing? If 'tis a sort of Anger and Indignation, whence do's it make them so pale? If you assign this Passion to Man alone, how do's it metamorphose them into beasts? taking from them all exercise of reason. If you admit it in beasts too, how do's it render Men so ingenious? I think they should speak best who should term it a Rage, since the most Tragical Histories are fullest of its actions. Yet you shall meet with some that make a laughter of it; and if a Mistress changes them, they also change their Mistress; who when they are marry'd alwayes knock at the door though it be wide open, for fear of finding what they do not seek: Whereas others are jealous even of the sheets of their own bed. Let us therefore rank it amongst the caprichious Passions; or rather let us do like the Physitians, who having given names to all the Veins and Bones, term some (which they know not how to call otherwise) Innominate and *sine pari*. So this Passion shall be the nameless and peerless Passion.

The Second said, This Passion seem'd to depend on the Climates, Northern people being very little subject to it; whereas they of the South cannot hear Mass or Sermon, unless there be a wall between the Men and the Women. And *Bodin* saith, 'twas one of the things which *Mendoza* (*Gondamor*) the Spanish Ambassador wonder'd at most in *France* and *England*, why Men went with Women into Churches. Likewise, *Cæsar* saith of the English, that twelve of them were contented with one Woman, and agreed peaceably; whereas the *Indians* and *Africans* have troops of Wives; and yet *Puna* King of the *Indians* did not think his secure amongst his Eunuchs, till he had disfigur'd them, and cut off their Arms.

The Third said, that Jealousie may be compar'd to the Syrian Cow, of whom the Proverb saith, that indeed she fill'd the pail with her Milk, but presently overturn'd it with a kick. It gives Love, and it gives Ruine. And yet this Passion is so inseparable, and so necessarily a companion of Love, that it do's the same office to it which the bellows do to the furnace which it kindles. For imagine a friendship in which there is no fear of Rivals, it will soon be extinguish'd, because the possession is accounted sure; and our affection is not carry'd violently, but where it finds resistance.

The Fourth said, Jealousie is a fear lest another injoy the Good which we challenge or possess. 'Tis the more dangerous in that it puts on the mask of Love, whereof nevertheless it partakes but little. The Poets represent Love to us like a Child full of joy and liberty; whereas Jealousie resembles an old, sullen, and distrustful Woman. Love proceeds from knowledge, (for we desire not things unknown) on the contrary, Jealousie, being a distrust either of our selves or the thing lov'd, or of both, presupposes a deficiency of knowledge, and consequently of Love. Whence Women having less knowledge than Men, are likewise  
more



more ready to entertain this Passion; and sometimes to such a degree, that those of the Isle of *Lemnos* kill'd all their Husbands upon it, excepting one.

The Fifth said, Jealousie is a sort of Indignation against one who intrencheth upon the honour which we account particularly due to our selves, or some other whom we love. Thus God is jealous of his glory, and good people likewise of the same. Brethren are jealous of their Father's Love. Those who seek the same office are jealous one of another. Rivals are so of the favours of their Mistresses. The first kind of Jealousie proceeds from the good opinion which every one hath of himself, of being more capable than any other, and better answering to the merits of the thing lov'd. And although it presupposeth Love, yet many times 'tis changed into Hatred, as Choler into Melancholy. In its beginning it makes use of Anger and Revenge; if it continue, of Sadness and Discontent; and afterwards of Fear, which sometimes tends to Despair.

The Sixth said, That this Passion was a Grief for that another invades what is ours. For Grief, as the other Passions, changes its name according as it is determin'd and restrain'd to a particular object. It serves to preserve and increase Love, and therefore is not absolutely to be decry'd. It enkindles in us a desire to please, for fear the person lov'd prefer another, in whom appears more perfection, before us. In some cases a Man shall deserve the name of Paltron if he shews not Jealousie; since Justice allows not that what belongs to one should be common; for what is every bodie's is no bodie's. Wherefore onely excessive Jealousie is blameable, being a mixture of many Passions, and the strongest and most violent affection that can seize upon the Mind, which it leaves no longer master of it self. It infuses distrusts and suspicions, and consequently to these, most inquieting curiosities to know the truth of what it seeks, but would not find; and which being found produces insupportable torments. The ill opinion which the Jealous hath of the person whom he pretends to Love causes him to misinterpret its best actions. Thus disturb'd Waters never represent well the species of Objects which they receive; and Eyes distemper'd with a suffusion judge things to be of the same colour wherewith themselves are tinctur'd.

The Seventh said, That Love is not of the nature of those Goods which the more they are communicated the more excellent they are; But 'tis a Union of Wills, and so loses its name when divided; as the Sun-beams being dispers'd are weak, but burn when re-united by a Burning-glass. Jealousie, which is the fear of dis-union, springs from the merits of the thing lov'd, and from a suspicion lest its perfection attract others besides our selves, to love it; especially when we acknowledge less of merit in our selves than in our Rivals, knowing that the most perfect things are most lov'd.

C O N-



## CONFERENCE XXVIII.

I. *What is the greatest Delight of Man.*II. *Of Cuckoldry.*

THE Rejoicings of this Season seem to have been appointed at the end of Winter, and entrance of Lent, two times equally sad, though upon different accounts; the one Natural, and the other Canonical. Because Joy is destinated to dilate the Trees, which Sadness shuts up. 'Tis caus'd several ways. For nothing is pleasing but according to the correspondence which it hath to our Phancy; as Pictures and Musick delight not but by the proportion which they have with the Sight and Hearing. Whence of the two Painters who contended together about the excellence of their skill, he carry'd the prize who before he set to his work took heed to the place from whence it was to be seen. Now the phancies and opinions of Men being so different, it is hard to know what is the greatest Joy, considering that the same thing may have correspondence to the Imagination of one, and repugnance to that of another. If a Musitian delights you, you should but ill requite him if you took his instrument and play'd him a lesson; 'tis Money which rejoyces him. He who could not drink his Wine, how excellent soever, unless it were carry'd to him to the Tavern, would have accounted all other delight empty without it. They who at present enjoy their Liberty in the Sea-ports, shew sufficiently what pleasure they take in play. In brief, as many different humours and inclinations as there are, so different will the judgements be upon this question: For even amongst those who place delight in Meats, you will scarce find three together whose Appetites agree. Besides, that who so would judge aright in the case must have tasted of all sorts of delights; yea, of each in its full extent, and with all its conditions-requisite.

I.  
*What is the  
greatest De-  
light of Man.*

The Second said, Delight seemes to be the repeated sense of some joy, such as is seen in publick and solemn jollities; as heretofore in the *Lupercalia* and *Saturnalia* of the Romans, and now in our Carnival. Now Joy is a Passion so lov'd and cherish'd by Man, that we may thereby judge of its value. For as some Men are curious of rarities in Ebony, others of Sea-shells, some of Antiquities of Marble, Flowers and Pictures, but all generally desire Gold, and like it well; so you see some valiant; others, studious; others, amorous; many, Sons of the bottle; briefly, this addicted to one action, and he to another; but you see none but loves Joy, what ever shew they make; and those pretended *Cato's*, each wrinkle of whose Faces is an obelisk, every word a censure, yet become tickled within themselves at the occurrence of pleasant objects, notwithstanding the blame

Z

which



which they seem to lay upon them : Like those *Stoicks* who durst not sit down to Dinner, for fear it should be believ'd that they took Pleasure in it, and nevertheless lik'd the Wine as well as others. Observe how Children, even from the cradle, caresse with their Head and Hands those that make Mirth, and decline the sower and severe. Nor is the fear of Correction sufficient to keep them from running after all pleasant objects, which they will invent among themselves rather than want. Old men, as they most need, so they receive the greatest benefit from it ; in this (perhaps) more unhappy than others, that having more knowledge by experience of what is pass'd, it is harder to delight them ; Pleasure most easily arising from novelty. Since therefore all sorts of conditions and ages sacrifice to Joy, and Philosophers have judg'd nothing more proper to Man than Laughter ; I conceive, 'tis a kind of inhumanity to forbid commerce to this inseparable companion of Man ; and although some may abuse it, yet it would be worse to interdict it, then to take away the use of Wine under pretext that some people sometimes take too much of it.

*Oderint dum  
mutuant.*

The Third said, Some contentments belong to the Mind, others to the Body. Not that the Body is capable of any Passion without the Minds help ; nor that the Soul, while it informs the Body, can apprehend any without its corporeal organs : but they borrow their name from the part which they chiefly affect. Thus, I can neither love nor hate, without having seen or heard the subject of my hatred or love ; and yet 'tis the Soul, not the Body, which loves or hates : The Body can neither drink nor eat without the Soul, and nevertheless 'tis not the Soul that drinks or eats, 'tis the Body. This suppos'd, me-thinks, the greatest delight of the humane Mind consists in being lov'd, and this is the end of all its actions. Whence those words, Let Men hate me, provided they fear me, were taken to be rather the voice of a savage beast than of a Man. This appears, because all from the highest to the lowest, endeavour to gain the goodwill of every one. 'Tis this which makes Men so desirous of Praise, because the same renders them amiable ; one for the excellence of his Mind, another for the beauty of his Body. Moreover, compare the misery of a *Timon* hated by all the world, with the contentment of a *Titus*, *Vespasian's* Son, surnamed the Delight of Mankind ; and you will see that to be lov'd surpasses all the Pleasures of the world, as much, as 'tis unpleasing to be hated. For the love which is borne towards us supposes some perfection in us, which being known, esteem'd, and prefer'd above that of others, produces the great contentments which we find therein. But as for those of the Body, *Pani* and all *Greece* too well found the ill consequence of adjudging the golden apple to the Goddess, whom Luxury made him prefer before the others, to encourage us to follow his example. *Demosthenes* had reason when he refus'd to buy at too dear a rate the repentance



rance which ordinarily follows this Pleasure ; the corners which it seeks, and the shame which accompanies it, together with its little duration, allow it not to be equall'd with other Passions compatible with Honour, and practis'd in the sight of all the world ; as feasts, dances, shews, sports, merry words, and the like, all which, I conceive, ought to be added together to make perfect Delight. But since 'tis requisite to prefer one, and punctually satisfy the question, I shall affirm, according to the liberty allow'd in this company, that nothing seems to me more capable to delight a Man then Good Cheer ; there's no better friendship then that which is acquir'd by cracking the glass ; friendships proceeding from sympathy of humours, and this from the same viands. And, in brief, if this receipt did not serve better to exhilarate Men then any other, you should not see it so diligently practis'd in these dayes by all the world. *Alexander* the Great, and the Famous *Marinus*, took no greater pleasure then in drinking great draughts. And the tediously-severe humour of the *Catoes* was not sweetned but at the table, where they ordinarily continu'd seven or eight hours. Moreover, Old-age, which we ought to follow for its great experience, after having pass'd through all the pleasures of life, fixes at last upon that of the Table, as the surest and most lasting ; others sliding away so fast, that they give not our Senses time to taste them, (which word testifies that 'tis the Taste which ought to judge.) And if it be said that their bodies are not capable of other contentments, I answer, that the Organs of all the faculties are in them equally debilitated.

Upon the Second Point, it was said, That to judge well of it, it is requisite to understand all the cases which make Men Cuckolds. Some are so, and know nothing of it. Some think they are, but are not ; and these are more miserable then if they were, and knew it not. If we believe Histories, some are so without their Wives fault, who have mistaken others for their own Husbands. Some are so, and half see it, yet believe nothing of it, by reason of the good opinion which they have of their Wives. Further, some know they are so, but do all they can to hinder it. Such was *P. Cornelius*, and *Corn. Tacitus*. In fine, some know it and suffer it, not being able to hinder it ; And I account these alone infamous.

The Second said, That the word Cuckold, deriv'd from Cuckow, is Ironically us'd ; for this Bird layes her eggs in the nest of others ; or else, because they who frequent other Mens Wives are oftentimes serv'd in the same manner ; or else for the reason upon which *Pliny* saith Vine-dressers were anciently called Cuckows, (that is to say, slothful) who deferr'd cutting their Vines till the Cuckow began to sing, which was a fortnight later then the right time : And thus the same name may have been given to those who by their negligence or sloth give their



Wives so much liberty that they abuse it. Unless we had rather say, that this Bird, being (as *Aristotle* saith) cold and moist of its own nature, and yet so prudent, as knowing it self unable to defend and feed its own young, it puts them into the neasts of other Birds, who nourish them as if they were their own; thus timorous, soft and weak Men, have been call'd Cuckolds, because not being able to support their own families, they cause the same to be maintain'd by others with the loss of their credit. They who derive it from the Greek word *Coccyx*, which signifies the rump, are not much out of the way. In brief, some go so far as to derive it from the Latin word *Coquus*, because those people lodging and feeding their Wives, and taking care of their Children, do like Cooks who trust out victuals to others.

The Third said, That Cuckoldry was but an imaginary thing; that the unchastity of the Wife could not dishonour the Husband, considering that what is out of us and our power do's not any wayes concern us; and it being impossible for the wisest Man in the world, by the consent of all, to hinder the lubricity of an incontinent Woman. Now no body is oblig'd to what is impossible; and as a vicious action ought to be onely imputed to its author, so ought the shame and dishonour which follows it; and 'tis as absurd to reflect it upon him who contributed not at all to the crime, as 'tis to ascribe the glory of a virtuous action to him who not onely did nothing towards it, but withstood it as much as he could. The Lawyers hold that a Contract made in secret, and without calling all the parties who have interest in it, cannot prejudice them; so neither can what Wives do without privity of their Husbands be any thing to their prejudice. Besides, if the dishonour were real, it would be so every where, and to all Men; but there are whole Nations who account not themselves dishonour'd by the business. The *Abyssines* take it not ill that their High Priest lyes with their Wives on the marriage-night, to purifie them. The people of the *East Indies* permit the injoyment of their Wives to those who give them an Elephant, being proud of having a Wife valu'd at so high a price. The *Romans*, though the most honourable of their time, were so little solicitous what their Wives did in their absence, that returning out of the Country, they alwayes us'd to send some body to advertise them of their arrival; so afraid they were to surprize them. And indeed, *Pompey*, *Cæsar*, *Augustus*, *Lucullus*, *Cato*, and many other great personages, were not the less esteem'd for having the Bulls feather given them by their Wives.

The Fourth said, Horns are not alwayes imaginary, since Histories assures us that they have really gor'd some persons, as *M. Benutius Cippus*, Prætor of *Rome*; the Ignominy likewise of them is real, and to say otherwise, is to go against the common opinion. For since Honour is in him who honours, not in him who is honour'd;



honour'd ; (the reason of contraries being alike) dishonour shall consequently come from him who dishonours. Now 'tis certain, most agree in this that Cuckolds are derided, though they know nothing of it. For as true honour may be given to one who deserves it not ; so may he be really dishonour'd who deserves nothing less. A good man publickly punish'd is truly dishonour'd, though he be innocent ; for 'tis requisite that the Sovereign Courts take away the infamy which he has incurr'd. A Virgin unwillingly deflower'd is yet dishonour'd by it ; and the vicious deportments and ignominious deaths of men derive shame to their relations. Much more, therefore, shall the shame attending the disgraceful lightness of a wife reflect upon her husband ; for being two in one flesh, that which touches one touches the other also, the innocence of the husbands (who are also usually styl'd good) remaining intire. So that one may be dishonour'd and yet be vertuous ; as also a Cuckold and an honest man together.

5. The Fifth said, That he counted it strange that Horns were the sign of infamy and ignominy in Marriage ; considering that otherwise they were always badges of grandeur and power. When one dreams that Horns are upon his forehead, 'tis always a presage of dignity. Thus, at the birth of *Cl. Albinus*, a Cow of his Father's having brought forth a Calf with two red Horns, the Augurs foretold the Empire to him ; which accordingly came to pass. And to honour those horns which had been the omen of his grandeur, he caus'd them to be hung up in *Apollo's* Temple. The Majesty of *Jupiter Hammon*, *Bacchus* and *Pan*, is represented by horns. Plenty also is signifi'd by a horn fill'd with all sort of fruits.

The Sixth said, Though every one's honesty and vertue depend on himself and not on the actions of another ; yet the point of his honour and esteem is drawn from divers circumstance and conditions of things neerly pertaining to him ; which the tyranny of common or rather phantastick opinion have establish'd as marks either to raise or blemish the lustre of his reputation. Hence we value those most who are descended of an illustrious Family, though they have no other mark of it but the name. Because, to speak after the common rate, our happiness or infelicity, and the compleat degree of our reputation, are the effects or consequents of what we call ours. Now our Kindred are not only ours, but are accounted to be our own blood, and our other selves ; and wives are not only so much to their husbands, or part of them, but they are the half of whatever they are. But if a part resent alteration by the affection of a part, 'tis impossible but the one half must be infected with the ignominious impudicity wherewith the other is contaminated. 'Tis true, all crimes ought to be personal ; but because men have mistakenly plac'd their happiness in external things (instead of establishing it in vertue which they ought to have in themselves) 'tis not



not to be wonder'd if having made the principal of the accessory, they bear the punishment of so doing. Besides, for chastisement of this folly, their felicity is never perfect, because they constitute it in that which is without their own power. Let it not be said, that since women derive all their lustre and splendor from their husbands, they cannot either increase or diminish the same; for the Moon receives all its light from the Sun, nevertheless when she is ill dispos'd, or looks with a bad aspect, or is in conjunction with him in the Nodes, and especially when she is apply'd to some infortunate Planet, she covers his face with darkness and clouds, at least to our view, though indeed he loses nothing of his clearness or light. A comparison the more suitable to a woman of bad life, in that the one and the other shine and rejoyce most at distance from him of whom they receive their light, and in that they do not approach neer him but to make horns; and lastly, in that they are never so sad as when they are with him. In brief, a Cuckold cannot avoid blame, either of defect of judgement in having made so bad a choice, or of indiscretion, weakness and want of authority, in not being able to regulate the deportment of his inferior; or else of little wit in not discovering her artifices to remedy the same. And should he always avoid them, yet he will still have the name of unhappy; and in the Age we now live in, unhappiness or misery draw shame and contempt along with them.

---

### CONFERENCE XXIX.

I. *Whence the saltness of the Sea proceeds?*

II. *Which is the best Food, Flesh or Fish.*

I.  
*Whence the  
Saltness of  
the Sea pro-  
ceeds.*

**A**Lthough the water and other Elements were in the beginning created in their natural purity, and without mixture of any forreign quality, such as saltness is to the water, which covering the whole surface of the earth would have made the same as barren as the Sea shores, yet it seems that in the separation of things, every one going its several way, God assign'd its peculiar qualities not only for its own preservation, but for the general benefit. Thus the water being retir'd into the Ocean receiv'd saltness, lest that great humid body, coming to be heated by the Sun, might putrifie (its flux and reflex, and its motion much slower then that of rivers, not being sufficient alone to hinder it) if the salt did not preserve it from corruption, as it doth all other things; and to the end that its waters being salt, and by that means more terrene and thick, might bear not onely Whales and other Fishes of enormous bignes, but also the great Ships necessary for the commerce of distant Climates, and the mutual



mutual transportation of commodities wherewith each Country abounds; whereby the life of men is render'd far more delightful. For experience teaches that an egge will swim in a Vessel of water sufficiently salted, but sink in fresh. And the Chirurgions have no surer way then this, to know whether the *Lixivium* (or Lee) wherewith they make their potential Cauteries, be strong enough. Now the Ocean imparts its saltness to all Seas which have communication with it. Whence the Caspian Sea is fresh, because 'tis separated from it. And 'tis no more strange that saltness is natural to the Sea, then that many other bodies, amongst Plants and Minerals, have a measure of it. The earth is almost every where salt, as appears by *Salt-peter*, *Vitriol*, *Alum*, and other kinds of Salt, which are drawn out of pits little deeper then the surface and crust of the earth, which is incessantly wash'd and temper'd with water. And amongst Plants, *Sage*, *Fearn*, and many other, taste of salt, which being augmented turns into the bitterness and acrimony which is found in *Worm-wood*, *Spurge*, and many other Herbs: all which, yea every other body, partake thereof more or less, as Chymical operations manifest.

The Second said, Being we are not to recur to supernatural causes unless natural fail us, methinks 'tis more fit to refer the Sea's saltness to some natural cause then to the first creation, or to the will of the Creator. I conceive, therefore, that the cause of this Saltness is the Sun, who burning the surface of the earth leaves, as 'twere, hot and dry ashes upon it, which by rain are carried into the rivers, and thence into the Sea. Besides, the Sun elevating continually from the Sea by its heat the freshest parts of it, as being the lightest and neerest the nature of air, the more terrestrial and salt remain in the bottom: or else the Sea-waters gliding through the bowels of the earth, to maintain springs, leave thicker parts, as those dry and acid ashes behind, which by their mixture produce this saltness and bitterness in the Sea. Nor is it to be wonder'd that the heavenly bodies draw so great a quantity of waters out of the Sea; for though the Vessel be very large, yet is the heat of the Sun able to heat it, since it reaches so deep as to concoct Metals in the entrails of the earth. And if it were not thus, all the rivers disgorging themselves into the sea, it would long ago have overflown the earth. But to know how nature makes the saltness of the Sea, let us see by what artifice Salt is made in our Pits. 'Tis made by the same activity of the Sun which draws up the sweet parts of the water and condenseth the salt. Whereby it appears that it is but a further progress of the first action of the same Sun, who dispos'd the Sea-water to become the matter of such Salt.

The Third said, A thing may become salt two ways; either by separation of the sweetest and subtilest parts, and leaving only the earthy, which come neer the nature of salt; or else by mixture of some other body, either actually or potentially salt.

The



The Sea acquires saltness by both these ways. For (first) it hath two sorts of water, the one subtile and light, the other thick and terrestrial; after the Sun hath drawn up in vapour the more subtile of these waters, and by its continual heat concocted the thick and terrene remainder, which having not been able to ascend by reason of its ponderosity, remains on the upper part of the water, and gives it that saltness; which is again remov'd when the sea-water being strain'd and filtr'd through the earth, or by other ways (formerly mention'd in this Company, in discourse concerning the original of waters) comes forth in springs and rivers; which no longer retain the nature of their source, because they bring not along with them the earthy part, in which the saltness consists. Now that the salt part is more gross than the fresh, appears, in that the former becomes thick, and the latter not. Thus, the freshest things become salt by the fire, whose heat separates the subtile parts from the thick. As for the second way, as the waters carry with them the qualities of places through which they pass (whence they are mineral, or metallick) and as in a *Lixivium*, fresh water passing through ashes becomes salt; so the sea-waters acquire and increase their saltness by mixture of salt bodies, such as are the Hills of salt (as *Cardan* holds) which are produc'd anew, like *Sulphur* and *Bitumen* in burning Mountains. Now this saltness is caus'd either by rains full of mineral spirits which abound in acrimony; or by the cinereous parts of the earth scorched by the Sun; or lastly, as things pass'd through the fire taste always of an *Empyreuma* (or turning-to) so the subterranean fires, likely to be as well in the bottom as in the middle and borders of the Sea (as they are ordinarily) impart bitterness and saltness to it. For as for those who say 'tis nothing else but the sweat of the earth, they speak (saith *Aristotle*) more like Poets than Philosophers. And this metaphor is more proper to explain the thing than shew its true cause.

The Fourth said, That all secrets consisting in the salt (if we believe the Chymists) 'tis not to be wonder'd if it be difficult to find the cause of it; it being the property of secrets to be hid. And to practise the Rule which enjoyns to credit every expert person in his own Art, I shall for this time be contented with this reason, drawn from their Art: They hold the Salt to be the balsam of nature, the connecter of the body with the spirit (for they allot spirits to all bodies) so that every body lasts more or less according to the salt which it hath, and the salt in like manner remains longer or shorter according as it is fix'd or volatile. This being premis'd, I should think that this great compounded body, the World, needing a great quantity of Salt, answerable to its vast bulk, Nature could not find any other sufficient receptacle for it but the Ocean.

Upon



Upon the second Point, it was said, The word *Best* is taken, at the table and amongst food, with reference to the *Taste*: in Physick, for most healthful or wholesome: In Divinity, for, most conducive to salvation, and proper to the soul: In Policy, for, most commodious to the publick. For as the word *good* is a *Transcendent*, passing through all the Categories of substances and accidents, its comparatives also do the like. Leaving to Divines the considerations which pertain to them in this matters, in which they are much puzzled to apply a Rule to so many different Climates, Seasons and Persons; we may here make comparison of Flesh and Fish in the other three Cases; In regard of the state, of Physick, and the Table. All which have this common, That it cannot be pronounc'd, as to one of them, which of the two is best, Flesh or Fish; because 'tis requisite to have regard to places and persons. To begin with Policy. 'Tis true, a time must be left to fowls to lay their egges, hatch and bring up their young; to other animals, to suckle theirs; otherwise the earth and the air would soon be depopulated; which time is usually the spring. But being this season and all others follow the course of the Sun in the Zodiack, which renders it various according to the diversity of Climates, we cannot find a time equally and universally proper for that release of Animals. Besides, there are Countries, as *England* and *Holland*, so abounding with fish and persons addicted to fishing, that nature offering them fish of her own accord, and their land not producing enough of other food for its inhabitants, the meaner people could not live of their industry, unless they were oblig'd by political Rule to live a certain time with Fish, and abstain from Flesh. As on the contrary, there's such a defect of fish in the middle parts of *Spain*, that they keep fast with the least nutritive parts of Animals, Feet and Entrails. Wherefore a general political rule cannot be establish'd; but, as in most other things of the world, we must make use of a leaden Rule, and conform it to the stone. Secondly, for Physick; the Case is much the same. For by reason of the variety of Tempers, fish will not only be wholesome, but also appointed by the Physicians to some persons, as to the Cholerick, whose stomachs need refreshment. True it is, there are found more to whom Fish do's hurt, then otherwise. But this proceeds from satiety and too great repletion, which would not be so frequent if we liv'd in the ancient Frugality: For we see, they who eat no supper receive less hurt from fish then others do. But 'tis always true that fish cannot be absolutely pronounc'd wholesome or unwholesome. As for the goodness of Taste, that is yet more controverted, as depending on the several phancies of men.

II.  
Whether is  
the better  
Flesh or Fish.

The Second said, That to judge this Question well, the same conditions are to be observ'd as in Juridical Sentences; in which alliances or friendships are allowable causes of exception, and credit is not given to those whose converse and particular

A a

incli-



inclination to one of the Parties renders their judgements suspected.

No doubt, he who had been fed with Stock-fish from his youth, and lov'd it so much that being arriv'd to the Pontifical Dignity, even then made his most delicious fare of it, would have concluded for fish. On the contrary, most others, whose stomachs agree not so well with fish, will give the advantage to flesh. 'Tis true, If it be here as 'tis in petty Courts, where he who cries loudest carries the Cause, then fish, to whom nature has deny'd the use of voice, must lose it, unless we maturely weigh their reasons. 1. The value and delicacy of Meats is usually rated according to their rarity and the scarcity of getting them; and therefore *Heliogabalus* never ate flesh but on the main Sea, nor fish but when he was very distant from it. Now Nature has separated fish from the habitation of men, and divided the one from the other as much as the water is from the Earth. 2. There's no kind of taste upon land which is not found in the water; nor any terrestrial animal but hath its like in the Sea. But we cannot say the same of Fishes, that there are terrestrial animals which have all their several tastes; and this proceeds from the almost infinite number of Fishes good to eat: whereas the Kinds of land-animals serviceable for man's food are very few. To that we may answer such as ask whether there be more delicacy in Flesh or Fish, as those who should ask whether Table is more delicious, that of a Citizen cover'd only with his ordinary fare, or that of *Lucullus* abounding besides with all imaginable rarities. You have some fishes who have nothing of fish but the name, having the consistence, colour, smell and taste of flesh; and the *Hashes* and *Bisques* made of them differ not from others. But you have no flesh which hath the taste of fish. 3. Animals more subject to infirmities and diseases ought less to delight our taste, and make us more afraid of them. Now land-animals are more sickly then fish, whose healthiness occasion'd the Proverb, *As sound as a Fish*. 4. Our taste is chiefly delighted in variety. Now there is not only incomparably more sorts of Fishes then of other Animals, but each of them is prepar'd after many more fashions then Flesh; there being some Fish which is dress'd five several ways: whereas when you have roasted a Partrich, or made a hash, Capilotade, or the Cook is at the end of his skill. 5. That which cloyes most is less delicate, as we see the most delicious things are those which whet instead of satiating the Appetite presently. Now Fish fills less then Flesh. 6. 'Tis a more friable food, and easier to be grownd by the teeth then the flesh of land-animals; and consequently more delicate.

3. The Third said, There's no flesh, how delicate soever, which comes neer the odour and savour of the little Pulpe, the fish *Spaga* taken in *Sicily*, the Tunny and Atolle of *Phrygia*, of those little fishes call'd *Cappes* found in the stones in *Marca d' Ancona*,



*d' Ancona*, and infinite others so esteem'd by the ancients, that they reckon'd amongst their greatest Delights, Ponds and Conservatories of Fish, which they nourish'd even with the bodies of their Slaves, to the end they might be more tender and delicate: as 'tis reported of *Lucullus* and *Pollio* who caus'd theirs to be devour'd by *Lampreys*. Nor is fish less nutritive then flesh, seeing there are whole Nations, as the *Ichthyophagi*, which have no other bread but fish, of which dry'd in the Sun and reduc'd into powder they make a bread as nourishing as ours. By which means Fish serves both for bread and for meat; which Flesh cannot be made to do.

The Fourth said, That the more affinity food hath with our nature, the more agreeable it is to us, it being the property of aliment to be like the thing nourish'd. Now 'tis certain, there's more resemblance between our bodies and those of land-animals, then those of fish; considering that the former breathe the same air with us, and are nourish'd with the same things. Besides, aliment, the more concocted and digested, is also the more delicate: raw flesh is not so delicate as dress'd, nor boil'd as roast, upon which the Fire acts more: and the parts of animals neereſt the heart or which are most stirr'd, as in Sheep the breast and shoulder, are the most savoury. Now Fish have much less heat then terrestrial animals, as appears in that 'tis scarce perceivable; and consequently are less concoct and savoury, but fuller of excrementitious and superfluous humidity, which renders them more flat and insipid then the flesh of animals, call'd *Meat* by way of excellence. Whence also all hunted flesh or Venison are more delicate then domestick food, because wild animals dissipate, by the continual motion wherewith they are chafed, the superfluous humours, which domestick acquire by rest. But experience alone and the Church's command are reasons sufficiently strong to establish this truth. For experience (the mistress of things, always causing the most to seek the best) shews us that more people eat flesh then fish. And the Church doth not forbid us flesh, and injoyn fish, but to mortifie us.

The fifth said, That the Flesh of Animals is the rule of the goodness of Fish, which is the better the nearer it comes to Flesh; whence arose the Proverb, *Young Flesh, and old Fish*; because in time it acquires the consistence of Flesh. Now that which serves for a rule must needs excell the thing to be judged of by it. Nor doth the variety of sauces wherewith Fish is prepar'd make more to its advantage, then the goodness of the heast doth to prove that a knife is very sharp.



## CONFERENCE XXX.

## I. Of the Terrestrial Paradise. II. Of Embalmings and Mummies.

I.  
Of the Ter-  
restrial Para-  
dise.

THE existence of the Terrestrial Paradise cannot without impiety be doubted, since the Scripture assures us that it was in the Eastern parts towards *Eden*, which place *Cain* inhabited afterwards, and is design'd by *Ezechiel*, cap. 27. neer *Coran* in *Mesopotamia*. But though 'tis not easie to know its true place, yet I am of their mind who hold that it was in the Mountain *Paliedo* in *Armenia*, the four Rivers mention'd to water Paradise issuing out of that Mountain; to wit, *Lareze* and *Araxes*, *Tigris* and *Euphrates*. *Lareze* running towards the West falls into *Palus Maotis*, or the *Mar del Zabac*. *Araxes* going towards the East discharges it self into the *Caspian* Sea, or *Mar de Sala*. *Tigris* and *Euphrates* run into the *Mar de Mesedin*, or *Persian* Gulph. And so *Lareze* and *Araxes* will be the *Pison* and *Gihon* mentioned in Scripture, not the *Nile* and *Ganges*, as some have thought; for the head of *Nile* being distant from that of *Ganges* 70 degrees, which make 1800 Leagues, how can they come from the same place? Nor is it to be wonder'd if those Rivers have chang'd their names, it being ordinary, not only to Rivers, but to Seas, Cities, and Provinces. Thus the River *Tanais* is now call'd *Don*; *Ister* is nam'd *Danubius*; *Eridanus*, *Padus*, or the *Poe*; *Paetolus*, *Tagus*; and almost all others.

The second said, 'Tis with this delicious place as with Illustrious Persons, whose Country being unknown, every one challenges for theirs. Thus after *Homer's* death seven Cities fell into debate about his birth, every one pretending to the glory of it. And thus the place of terrestrial Paradise being unknown to men, many have assign'd it to their own Country; but especially the Orientals have right to appropriate the same to themselves, having a title for it. Some have conceiv'd, That before the Deluge it took up the most fertile Regions of the East, namely, *Syria*, *Damascus*, *Arabia*, *Aegypt*, and the adjacent Provinces; but the Waters having by their inundation disfigured the whole surface of the earth, and chang'd the course of the four Rivers, there remains not any trace or foot-step of it. Many believe that it was in *Palestine*, and that the Tree of Knowledge of Good and Evil was planted upon Mount *Calvary*, where our Lord was Crucified, to the end the sin of our first Father might be expiated in the same place where it was committed: For they who place it under the Equinoctial Line may find some reason for it as to the Heaven, but not as to the Earth: But they who assign it to the concave of the Moon had need establish new Principles, to keep themselves from being ridiculous. They best excuse



cuse our ignorance who say, That 'tis indeed in some place upon the Earth, but Seas, or Rocks, or intemperateness of Climate, hinder access to it : Whereunto others add, That when God punish'd the sin of man with the Flood, his Justice left the place where the first was committed still cover'd with waters.

The third said, What is commonly alledg'd, That the way to Paradise is not easie, though meant of the Cœlestial, may also be applied to the Terrestrial; for it is amongst us, and yet the way which leads to it cannot be found. The diversity of opinions touching its true place hath given ground to some Fathers to take this History in a mystical sense, and say, That this Paradise was the Universal Church; That the four Rivers which watered it and all the Earth were the four Evangdlists, their Gospels (which at first were written for the benefit of the faithful) having resounded through all the corners of the Earth; That the Trees laden with good Fruits are the good Works of the many holy Personages; the Tree of Life, our Lord Christ; the Tree of Knowledge of Good and Evil, our Free-will; *Adam*, our Soul; *Eve*, our Senses; the Serpent, Temptation; the banishment of *Adam* out of Paradise, the loss of Grace; the Cherubim wielding his flaming Sword, the Divine Anger and Vengeance; and the leaves of the Fig-tree, the vain excuses of our first Parents. But some Geographers having taken notice of a place not far from *Babylon* where the Rivers *Euphrates* and *Tigris* joyn together, and afterwards are divided again, and change their names, one of the Arms (which descends into the Persian Sea) being call'd *Phasis*, which is *Pison*; the other (which is *Gihon*) passing through *Arabia Deserta*, and *Æthiopia*, which is neer it, have conceiv'd that the Terrestrial Paradise was at the place of the Conjunction of those four Rivers between the Caspian, Persian, and Mediterranean Seas, towards *Mesopotamia* and *Arabia*. And consequently it seems best to take this History according to the Letter, there being a place still which agrees with the truth of that description. Nevertheless the Objection, [*That the small portion of Land which appears between those Rivers would not have suffic'd to lodg and feed Adam and his Posterity, as would have been necessary in case he had not sinn'd.*] makes me rather incline to their opinion who think that the Terrestrial Paradise was all the habitable Earth, such as it was before sin; the four Rivers, the four Seasons of the Year, or the four Cardinal Winds, or the four Elements; which is manifested in that the Scripture doth not set down that *Adam* went to Travel into any other Land after he was driven out of Paradise. 'Twas enough for him that this Earth was no longer a Paradise to him, but produc'd nothing but thorns and thistles, instead of the fruits and flowers which it afforded before God had curs'd it, and so inseparably connected man's labour with those fruits, that now adays to expresse a hundred acres of Land we commonly say, A hundred acres of Labour. And as a place ceases to be the Court when  
the



the King is no longer in it, so the Divine Benediction withdrawn from the Earth, it ceas'd to be Paradise: Yea, *Adam* having ceas'd to be King of it, and by his sin lost the Dominion which he had over all, even the fiercest Creatures, the Earth became no longer a Paradise to him. But if I be requir'd to assign a particular place to this Paradise, leaving the description of places which I never saw to the belief of Geographers, I find none more fit for it then *France*: Its Climate is temperate, especially towards the East and South: It hath four Rivers, which bring into it Gold, and all the other Commodities attributed unto Paradise by the first Historian: It so abounds with all sorts of flowers that it hath taken three Lillies for its Arms; And with fruits, that it hath for it self and its Neighbours; yea, above any other, it produces every Tree *fair to look upon, and good for food* (to use the Scripture-words). One interpos'd, That he should think 'twas *Normandie*, so fruitful of goodly Apples, were it not that no Vines grow there, whose fruit is so pleasant to behold.

The fourth said, As there is no great certainty in the consequences drawn from Allegories, so neither are Allegories very succesfully drawn from Histories, and substituted in their places. I know not what History is, if that of our first Father be not; nor where to stop, if people will subtilize upon the first circumstance of his Creation, and what he did afterwards. But if we find difficulty in according the Geographical Tables of the present time with the truth of that, why do not we likewise make Allegories of the Creation, and all its sequels, which are so many Miracles? If we see no Angel that guards the access to it, no more did *Balaam* see that which stood in his way, though visible to his Ass. And being the space of the Garden of *Eden* is not determinately set down, nothing hinders but that it might be of very vast extent; and this takes away the scruple of those who object the distance which is between all those great Rivers. Besides, being *Enoch* and *Elias* were since *Adam*'s fall transported into this Paradise, where they must be till the coming of Anti-christ, 'tis a certain Argument of its real subsistence.

II.  
Of Embal-  
mings and  
Mummies.

Upon the second point it was said, That the Ancients were much more careful then we, not only to preserve the Images of their Fore-fathers, but also to keep their Bodies, which they variously embalmed. The *Grecians* wash'd them in Wine mingled with warm Water, and then put them into oyl of Olives, Honey, or Wax. The *Æthyopians* first salted them, and then put them into Vessels of Glass. In the *Canary* Islands they season them in the Sea, and afterwards dry them in the Sun. The *Scythians* place them upon Mountains cover'd with snow, or in the coolest Caves. Indeed every one knows there is a Cave at *Tholouze* which hath a particular virtue to preserve carcases from corruption, and in which is seen at this day the entire body of the fair Saint *Baume*; and many others, dead

above



above 200 years ago. The *Indians* cover'd them with ashes. The *Ægyptians* conceiving that bodies corrupted rose not again, and that the Soul was sensible of the Bodies corruption, did not yield to any people in curiosity of preserving them; they fill'd with Myrrhe, Cinamon and other Spices, or with Oyl of Cedar; then they salted them with Nitre, whose acrimony consumes all the superfluous humidities which cause putrifaction. 'Tis from these bodies that we have that excellent Mummie, whose admirable effects I ascribe to sympathy. But concerning what is affirm'd, that being transported by Sea they cause tempests and strange agitations in the Ship; 'tis an effect which is to be attributed to a more occult cause.

The Second said, Man is so admirable an Edifice, that even his Ruines have their use. His Fat is one of the most excellent Anodynes. His Skull serves against the Epileptic. This liquor which is drawn from his Tomb hath several vertues: and the reasons of the great and admirable effects imputed to it, as the healing of inwards Ulcers, and Contusions of Blood arriving to such as have fallen from on high, seem to me imputable to three Causes; a Spiritual, a Celestial, and an Elementary. The first ariseth hence, that so perfect a Form as the reasonable Soul, having inform'd part of this *Compositum*, which by the mixture of some Ingredients, as Myrrhe and Aloes, hath been preserv'd from corruption, the same thing arrives to it which the Chymists say doth to their white Gold when they have extracted its Sulphur and Tincture. For being re-joyn'd to other Gold, it easily resumes the same form, and is sooner and more inseparably combin'd with it than any other thing, as having been of the same species. So when you put Mummie into a body of the same species, it takes part with the nature whence it proceeded, and siding with it incounters the disease and its symptoms: like Succour coming to relieve a besieged City with provisions and ammunition. The Celestial cause is drawn from the Heavens; for that the light and influence of superiour bodies act upon all the sublunary; but, by the consent of all, none is so susceptible of their actions as man; and if his soul be not subject thereunto, yet his body is, undoubtedly; to each part of which each part of Heaven not only answers, as some hold, but the whole to all. Whence is seen the diversity of disposition, inclinations and manners, such and so great, that 'tis a palpable mistake to attribute the same to the meer mixture of the Elements. Now Mummie, having receiv'd, not only while it was animated, but afterwards, all the influences whereof the humane body is susceptible, it becomes, as it were, the abstract of all the Celestial powers; and better then Talismanical figures, communicates the same to him that uses it. The last reason, drawn from the mixture of the Elements and their qualities, might suffice alone without the preceding. For Man being the abridgement of the world, ought also to contain all the faculties of it; and his Mummie being



being inanimate, but having liv'd the life of a plant, an animal and a man, it contains all these natures *eminently*.

The Third said, That Man affecting nothing so much as immortality, because he fears nothing more than death; and being unable to secure himself from it; do's all that he can to perpetuate himself in some fashion, since he cannot wholly. The desire of supporting his Individual person, and defending it from all inconveniences which may abridge his life, makes him count nothing difficult. In Propagation he seeks the eternity of his species. And though he is assur'd, by Reason, of his soul's immortality; and by faith, of his body's resurrection, yet he seeks all ways he can imagine to render the memory of all his actions perpetual. 'Tis this desire of getting a death-less fame, which causes us sometimes to dye immaturely by watchings and study, and so cheerfully undergo hazards, to eternize the memory of our names. Anciently this desire of perpetuation was most visible in the care to keep the life-less body, even amongst the vulgar; and hence the Mummies of the Egyptians and other Nations remain to this day, after three or four thousand years. At present, through the ignorance of Times, this care is practis'd only amongst great persons; and yet the effect answers very little to their intention. For the Chirurgions do not Embalm a man now adays, but only the bones and skin, after they have taken away his principal parts, the heart, liver and brain, which constituted him a man, and not the rest; the cause whereof must be attributed to defect of Invention and means fit to dry up the superfluous humidity which causes the corruption of body; for that alone will keep them which can dry them with the moderation requisite to the preserving of their Colour and Figure.

The Fourth said, There's a resemblance of these Mummies in bodies struck with thunder, which are free from corruption; the Sulphur consuming the humidity, and introducing dryness to resist putrification, as Fire, Salt, Vitriol, Nitre, Chalk, Alum, Vinegar, and Aqua-vitæ, do by their desiccative and astringing virtue. Some poysons also do the same. As *Placentinus* reports of a Venetian Lady, who having been poyson'd, her body became so stiff, that it seem'd to be petrifi'd. But the particular temper of every place is of great moment. They who inhabit the Southern Countries are so dry that their bodies keep intire eight days after death. And they have so little humidity, that 'tis no less a shame amongst them, then of old amongst the Lacedemonians, to spit or blow the Nose.

The Fifth said, That the same natural inclination of men to preserve themselves the longest they can, which heretofore instigated them to erect proud Mausolæum's, Pyramids and Marbles, for eternizing their memory; put them also upon the invention of Embalming their bodies; which is a refuge after shipwreck, a little way after death. But as 'tis a general law that

all



all things which took their being by generation must lose it by corruption ; indeed by some artifice we may retard dissolution for a time ; but perfectly to hinder it, is impossible. For Heat determin'd to a certain degree by Cold, is the Agent which mixes the Humid with the Dry , and retains them in that mixture as long as it self remains intire and strong. But if this Heat receive any diminution, either being suffocated and inclos'd, or or else drawn out by a greater Heat of the Air encompassing us, (the less Heat alwayes yielding and serving for Aliment to the greater) this natural Heat being thus weakned, presently the Humidity leaves the Dryness, and carries away with it self that little Heat which remain'd ; whence this Humidity is heated it self, and excites a stink, and at last vanishing away, the remainder turnes to powder. Wherefore the moistest bodies are most easie to corrupt, excessive humidity more easily extinguishing the Heat which retain'd it in its duty. And the most solid bodies, as Gold and Silver, corrupt difficultly, because they have very little Humidity ; and that little which they have is greatly incorporated and united with the Dryness. But there are two sorts of Humidity ; One, excrementitious and also alimentous, which by the least defect of Heat is easily turn'd into putrefaction, because it is not yet united and assimilated to the Body wherein it is found ; whence it is that foul Bodies, Trees cut at Full Moon, being full of their sap, and Fruits gather'd before their maturity, very easily corrupt. The other is an Humidity already assimilated, which links all the parts together ; and being substantial, is not so easily corrupted as the other. Wherefore they who would embalm Bodies well, having two Humidities to repress, must make use of several means. The former Humidity must be absorb'd by Hot Drugs, amongst which, *Wormwood* and *Scordium* hold the first place ; experience manifesting the one, and *Galen* observing that the Bodies of the Græcians slain in a battel, which touch'd *Scordium*, were found intire many dayes after. The latter Humidity must be preserv'd by Balsams Cold, Dry and penetrating, which may preserve the figure, colour, and consistence in the dead body.

## CONFERENCE XXXI.

- I. *Whether the Life of Man may be prolong'd by Art.* II. *Whether 'tis better to be without Passion then to moderate them.*

THE duration of a motion or action cannot be known, unless the measure of it be known ; nor can they be measur'd unless they have known bounds. Whence neither can it be

B b

known

I.  
*Whether the Life of a Man may be prolong'd by Art.*



known whether the Life may be prolong'd, without knowing before-hand how long it lasts. Now 'tis impossible to know this duration. For, not to mention the long lives of the Fathers in the two first thousand years of the world, God told *Noah*, that the age of Man should be no more then but sixscore years. *Moses* and *David* restrain it to seventy or eighty. And yet as there are at this day some who come near a hundred, so there are a hundred times as many who do not attain thirty. And whereas nobody can speak of Death by experience, because they who speak of it have not felt it, and they who have felt it cannot speak of it more; the case is the same concerning Life. Let a Man, by good order, or the use of remedies, live as long as he will, it will not be believ'd that his life ha's been prolong'd; but, on the contrary, that his hour was not yet come. Nevertheless 'tis no less consistent with reason, to say, that he who would infallibly have dy'd of a Gangrene which invaded his Legg, and thereby the rest of his Body, hath had his life prolong'd by cutting off his Legg; or that he who was wounded in the crural vein, at which all his blood would have soon issu'd forth, ha's been secur'd from death by the Chirurgion, who stop'd the blood; then to believe, as we do, that a Rope-maker lengthens his rope by adding new stuff to that which was ended; that a Gold-smith makes a chain of Gold longer by fastning new links to it; that a Smith causes his fire to last more by putting fresh coals to it. And as, in all this, there is nothing which crosses our Reason; so if a sick man, who is visibly going to dye, receives help, and escapes, do's he not owe the more glory to God for having not onely cur'd him by the hands of the Physitian, or by spiritual Physick alone, but also prolong'd his Life, as he did to King *Hezekias*, whose Life was lengthened fifteen years, and of which our age wants not example? If it be objected that this may hold in violent deaths, whereof the causes may be avoided, but that 'tis not credible that a decrepit old man, who hath spun out his Life to the last, can continue it; the nature and Etymology of the radical moisture not admitting a possibility of restauration; I answer, that reasons taken from the original of words, are not the strongest; and that besides there are roots which endure more, and others less, according as they are well or ill cultivated. And if the reason drawn from contraries be considerable, being many poysons are so quick that they corrupt the radical moisture in an instant, ought we to conceive Nature so much a step-dame as that she hath not produc'd something proper to restore it? And that Humane Industry is so dull and little industrious in the thing which Man desires most, which is long Life, that it cannot reach to prepare some matter for the support, yea, for the restauration of that Original Humidity? Considering that we are not reduc'd to live onely by what is about us, as Plants and Plant-animals do, but all the world is open and accessible to our search of Aliments and Medicines.

Moreover,



Moreover, we have examples not onely of a *Nestor* who liv'd three ages; of an *Artephius* who liv'd as many, and many more; and the Herb *Moly*, the Nectar and Ambrosia of the Poets, which kept their gods from growing old, may well be taken for a figure of the Tree of Life, which was design'd for separation of this Humidity, but also of compositions proper to produce that effect. Yea, were it not actually so, yet 'tis not less possible; and God hath not in vain promis'd as a Reward to such as honour their Superiors, to prolong their dayes upon the earth.

The Second said, If *Medæa* found Herbs, as the Poets say, to lengthen the Life of *Æson* the Father of *Jason*, the Daughters of *Æliæ* miscarried of their purpose. Indeed every thing that lives needs Heat for exercising its Actions, and Humidity to sustain that Heat; the duration of this Heat in the Humidity is Life, which lasts as long as the one is maintain'd by the other; like the lighted wick in a Lamp. Now Nature dispenses to every one from the Birth as much of this Heat and Moisture as she pleases, to one for fifty, to another for sixty, seventy, eighty years or more; which ended, the stock is spent. Physick may husband it well, but cannot produce it anew; Aliments never repair it perfectly, no more then Water doth Wine, which it increases indeed, but weakens too, when mingled therewith.

The Third back'd this Suffrage with the opinion of *Pythagoras*, who held that our Life is a strait line; that the accidents which disturb it, and at length bring Death, constitute another; and accordingly (saith he) as these two lines incline less or much towards one another, Life is long or short; because the Angle of their incidence, and at which they cut, which is our Death, happens sooner or later; and it would never happen, if these two lines were parallel. Now the meeting of these two lines cannot be deferr'd or put off.

The Fourth said, 'Twere a strange thing if Humane Art could repair all other defects of the Body and Mind, excepting that whereof there is most need, and all Ages have complain'd, Brevity of Life. For our Understanding hath much less need of an Art of Reasoning, our tongue of an Art of speaking, our legs of dancing, then our Life of being continu'd, since 'tis the foundation of all the rest. Besides, Physick would seem useless without this. For though it serv'd only to assuage the pains of diseases, (which is a ridiculous opinion) yet it would thereby protract the time of Death, to which pain is the way.

The Fifth said, That for the preservation of Life, 'tis requisite to continue the marriage of Heat and moisture, Death alwayes hapning immediately upon their disjunction, and leaving the contrary qualities in their room, Cold and Dryness. Now to know how Heat must be preserv'd, we must observe how 'tis destroy'd. And that is four wayes. I. By Cold, which being moderate, fights with it; but violent, wholly destroyes it.

Bb 2.

II. By



II. By suffocation, or smothering, when the Pores are stop'd, and the issue of fuliginous vapours hindred : Thus Fire dyes for want of Air. III. By its dissipation, which is caus'd by hot medicaments, violent exercise, and immoderate heat of the Sun or Fire : Whence proceeds a Syncope or Deliquium of the Heart. IV. By want of Aliment, without which it can no more last a moment, then Fire without wood or other combustible matter. All agree that the three first Causes may be avoided, or at least remedied. And as for the Fourth, which is doubled of, I see nothing that hinders but that as the spirits of our bodies are perfectly repair'd by the Air we incessantly breathe ; so Aliments, or some Specificks, as, as amongst others, Gold dissolv'd in some water not corrosive, may in some manner restore the fuel of our Heat. And seeing there are found burning Mountains, in which the Fire cannot consume so much matter apt for burning, but it alwayes affords it self other new, which makes it subsist for many Ages : Why may not a matter be prepar'd for our Natural Heat, which though not neer so perfect as that which it consum'd, (for were it so, an Animal would be immortal) yet may be more excellent then ordinary Aliments, and by this means prolong our Lives. And this must be sought after, not judg'd impossible.

The Sixth said, That Life consisting in the Harmony and proportion of the four first qualities, and in the contemperation of the four Humours ; there's no more requir'd for the prolonging of Life, but to continue this Harmony. Which may be done, not onely by a good natural temper, but also by the right use of external things ; as pure Air, places healthful and exposed to the Eastern winds, Aliments of good juice, sleep sufficiently long, exercises not violent, passions well rul'd, and the other things ; whose due administration must prolong Life by the same reason that their abuse or indiscreet usage diminishes it.

The Seventh said, That Life consists in the salt which contains the Spirit that quickens it, and is the preservative Balsame of all compounds. The vivifying Spirit of Man is inclos'd in a very volatile Armoniack Salt, which exhales easily by Heat, and therefore needs incessant reparation by Aliments. Now to preserve Life long, it is requisite to fix this volatile salt ; which is done by means of another salt extracted by Chymistry, which is not onely fix'd, but also capable to fix the most volatile. For the Chymists represent this salt incorruptible in it self, and communicating its virtue to other bodies : Upon which account they stile it Quintessence, Æthereal Body, Elixir, and Radical Balsame, which hath a propriety to preserve not onely living bodies many Ages, but dead, from corruption.

II.  
Whether 'tis  
better to be  
without  
Passions then  
to moderate  
them.

Upon the Second Point, it was said, Tranquility of Mind, the scope and end of Moral Philosophy, is of three sorts. The I. is call'd *Alaraxic*, and is in the Understanding, whose judgement it suspends,



suspends, and is not mov'd with any thing; which was the end of the *Scepticks*. The II. is in the Reason, which regulates the Passions of the Sensitive Appetite, and is term'd *Metriopathy*, or moderation of the Passions. The III. is the *Apathy* of the *Stoicks*, in which they constituted their supreme Good; which is an Insensibility, Indolence, and want of Passions, attributed by the envious to a Melancholy Humour, or to Ambition and Cynicall Hypocrisie. For the Melancholy Man seeking solitude as the Aliment of his Phancy, and the Element of his black Humour, (which is the step-dame of Virtues) by thinking to avoid external Passions, remains under the Tyranny of internal, which he dares not vent, but covers like Fire under ashes. This mask'd Sect shuts the fore-door indeed to the Passions, but opens the postern. They passionately desire to shew themselves without Passion. And their vanity appears in that they affect to appear unlike the rest of Men, by casting off humane sentiments and affections, as Charity and Compassion, which they account vitious. But instead of raising themselves above Men, they degrade themselves below beasts, by depriving themselves of the indifferent actions which are common to us with them: Actions which Reason ought to regulate indeed, but not wholly reject. And as the supreme Region of the Air receives Exhalations to inflame them, and make shining Comets, but is free from Hail, Thunder, Winds, Rains, and other Meteors which are made in the Middle Region; so Reason ought to receive the notices of the Sensitive Appetite which are called Passions, to make use of them; but 'tis to moderate them, and hinder the disorder caus'd by them in the Sensitive Appetite, which is the Middle Faculty of the Soul. In fine, as Eagles and Dolphins, which are in the tempests of the Winds and Sea, are yet more to be esteem'd than Moles, Wormes, and other creeping things which live in holes; so he who is agitated with Passions much surpasses him who hath none at all. Nor is there any body but desires rather to be froward than stupid and insensible. And if Insensibility be a Virtue, then stocks and stones and inanimate bodies would be more happy than we.

The Second said, Since Passion is an irregular motion of the Sensitive Appetite, call'd therefore Perturbation, it alters the state of the Soul: Whence Anger and Fear hinder us from perceiving what is visible, and Hatred or Love pervert the Judgment; for which reason we desire that a good Judge be without Passion. What a disease is to the Body, whose actions it hurteth, that are the Passions to the Soul. Wherefore to ask whether the Soul is happiest without Passion, is to question whether the Body is most at ease without sickness; and, to moderate instead of extirpating them, is to palliate a disease instead of curing it; and to inquire of a Pilot whether a Tempest be more proper for Navigation than a Calm. Moreover, the happiest condition of Man is that which comes nearest Eternal Bliss, in  
which



which we shall have no Passions ; the superior and rational part having subdu'd the inferior or sensitive. And *Aristotle* holds, that the Heroes or Demi-gods are exempted from them.

The Third said, 'Tis to derogate from our Senses, to say, with the *Stoicks*, that the Passions which we feele proceed onely from the depravation of our judgements. For what they call diseases of the Mind, is meant of those which are inordinate, and not of those which are moderate and fram'd by the level of Reason. 'Tis therefore expedient to moderate, them, but not wholly extinguish them, though it were possible. Now that it is impossible, appears, because they are appurtenances of our Nature, and the actions of the Sensitive Faculty, which is part of our selves. And our Lord not having renounc'd these appendances of our Humanity, hath thereby manifested that they are not vicious. Besides, the first motions are not in our power, and therefore 'tis impossible totally to extirpate them. But though we could, we ought not, because they are altogether necessary; as appears in that, I. Without the Passions there would be no Virtues, for the Passions are the Objects of Virtues; Thus Temperance moderates Pleasure and Pain, Fortitude regulates Boldness and Fear. II. They sharpen them. Thus Anger serves to heighten Courage, and Fear augments Prudence. III. They preserve an Animal. Thus Pleasure incites Animals to feed and generate, and Grief makes them avoid what is noxious, and recur to remedies, even in spiritual distempers; in which to be insensible of Grief is to be desperate.

The Fourth said, If Men were void of Passions, they might be lead to Virtue with much more success and less trouble. For they would not be averted from it by the contrary motions of their Passions, which hurry them with so great violence, that all that the most virtuous endeavour to do, is, to swim against the Torrent, and repress its impetuous course: Upon which they unfruitfully spend their time, which might be farr better employ'd in performing virtuous actions, when the rebated Passions (introducing an agreeable evenness in their *Humours*, with a firm *Constancy* in their *Manners*, accompany'd with a laudable *indifference* in their *Desires*) would allow reason more means to incite them to the exercise of Virtues. For Men having their Eyes unvail'd of the sundry affections which blind them, would more perfectly know the True Good, and consequently pursue it by a shorter and surer way. And though they were not lead to Sensible Good with so much ardour, nor decline Evil with so much horreur, yet they would do both with more reason. So that, what Men do now by a motion of the Sensitive Appetite, they would do then by a principle of Virtue. For the difficulty found in attaining a total privation of Passions seemes indeed to surpass our strength, yet thereby sets forth the excellence of the Atchievement.

The Fifth said, He that were exempt from all Passions, would be



be as unhappy as he that should always endeavour to bridle them. But the former is impossible, and the latter no less difficult then to walk upon a rope, where the least false step procures a dangerous fall. For we quit our passions, but they quit not us; as the thought of young maidens follow'd a good father even into his Hermitage. And he that goes about to tame them, is the true *Sisyphus*, upon whom the stone which he thrusts away incessantly revolves. The first would be without joy, without which nevertheless a man cannot be happy. The second would be without rest, because he would be in perpetual combat and inquietude, wherewith felicity cannot consist. I conceive therefore (morally speaking) there's more felicity in gently giving the bridle to one's passions, and following his inclinations: although this opinion may well consist with Christian Philosophy in good-natur'd persons, or such as have acquir'd a good temper by good examples, who may innocently follow their inclination, because it will lead them only to vertuous, or, at least, indifferent things. And for the vicious, 'tis certain the evil which they do not by reason of the repugnance which they have to it, and the fear of punishment, cannot be imputed to them for vertue, nor consequently make them happy.

## CONFERENCE XXXII.

I. *Sympathie and Antipathy.* II. *Whether Love descending is stronger then ascending.*

WHAT a Father once said, That the first, second, and third Point of Christian Philosophy was humility (meaning that it all referr'd thereunto) the same may be said of Sympathy and Antipathy, which is the Similitude or Contrariety of Affections. For the generation and corruption of all things is to be referr'd to them. The sympathy of the simple qualities, and the Elements wherein they are found, are causes of the temperament of mixt bodies, as the antipathy is of their dissolution. 'Tis they who unite and dis-unite those compound bodies, and by approximating or removing them one from another cause all their motions and actions. When these causes are apparent to us, and may be probably imputed to qualities, we recur to them as the most easie, general and common. But when we find bodies, whose qualities seem alike to us, and nevertheless they have very different effects, we are then constrain'd to seek the cause thereof elsewhere; and finding none, we call it an Occult Propriety, whose two daughters are Sympathy and Antipathy. For Man, being a reasonable creature, is desirous

I.  
Of Sympathy  
and Antipa-  
thy.



desirous to know the reason of every thing ; and when he cannot attain to it he becomes as much tormented as a Judge whose Jurisdiction is retrench'd : and this through want of apprehending that what he knows hath no other proportion to what he ignores, then finite, yea very little, hath to infinite. And being unable to find the true reason of an infinite number of effects which ravish him with admiration, yet resolving to have some one, he feigns one under these names of Sympathy and Antipathy ; those two *Hocus Pocus*'s, to which he refers the cause why Corral stays bleeding, Amber draws straw, the Load-stone Iron, which the Theamede rejects ; why the Star-stone moves in Vinegar, the Cole-wort is an enemy to the Vines, Garlick a friend to the Rose and Lilly, increasing one the others' odour ; why a man's fasting-spittle kills the Viper, why Eeles drown'd in Wine make the drinker thenceforward hate it ; why Betony strengthens the Brain, Sacchory is proper to the Liver, Bezoar a friend to the Heart ; and infinite others. But because general causes do not satisfie us no more then Definitions whose Genuses are remote, and the Differences common, it seems we are oblig'd to a particular inquisition of their causes.

The Second said, The Subjects in which Sympathies and Antipathies are found must be distinguish'd, in order to assign their true causes. For in things alike, we may refer their effects to the similitude of their substances and accidents. Thus the Lungs of a Fox are useful to such as are Phthysical ; the intestine of a Wolf is good for the Colick ; Eye-bright for the Eye, *Solomons's*-Seal for the Rupture, the black decoction of Sena for Melancholy, yellow Rhubarb for choler, white Agaric for Flegm. Yet 'tis not requisite that this resemblance be total ; for then a man's Lungs should rather be serviceable to the Phthysical, then that of a Fox, and the Load-stone should rather draw a Load-then Iron, which yet do's not hold, because there's no action between things perfectly alike. Antipathy also arises from the contrariety of Forms, their qualities and other accidents. Now we are much puzzl'd to assign the causes of this Sympathy and Antipathy in things which have nothing either of likeness or contrariety : as when I see two unknown men play at Tennis, the one with as good a grace as the other, I have a kind of desire that one may rather win then the other. Is it not rather chance which causes this ? Our will, though free, being always oblig'd to tend this way or that way, and cannot chuse the worst ; or else, all things being made by weight, number and measure, those affect one another most who have the same proportion in their composition ; or who had the same configuration of heaven at their birth. Or every thing naturally affecting to become perfect seeks this perfection in all the subjects which it meets ; and when the same disposition is found in two several bodies or minds, if they would arrive at that perfection



fection by one and the same way, this meeting serves for the means of union, which is our sympathy; and their different disposition or way, the contrary.

The Third, amongst sundry examples of Antipathy, said, That if we believe *Apuleius*, the Look-glassing us'd by an incontinent woman spoils the visage of a chaste; that it is manifest between the horse and the Camel, the Elephant and the Swine, the Lyon and the Cock, the Bull and the Fig-tree, the Adder and a naked man, the Ape and the Tortois, the Serpent and the shadow of the Ash. For that which is observ'd amongst Animals who devour and serve for food to one another, as the Wolf and the Sheep, the Kite and the Chicken; or amongst those who always offend and hurt one the other, as Man and the Serpent, deserve rather the name of Enmity, whereof the causes are manifest. But, to speak truth, all these effects are no more known to us then their causes are unknown. He who endu'd them with Formes having annex'd Proprieties thereunto, both the one and the other, impenetrable to humane wit.

The Fourth said, That for a lasting order amongst the creatures, it was requisite that every one were naturally lead to its own preservation by adhering to what was conducive thereunto, and eschewing the contrary. Now, to do this, they needed instruments whereby to act, which are their qualities, either *manifest* (which proceed from the Temperament, and are either First, or Second, or else *occult* (which proceed from every form and substance) to which the Sympathies and Antipathies, correspondences and contrarieties of all natural Bodies ought to be referr'd, from whence issue some Spirits bearing the character and idea of the form from which they flow. These spirits being carried through the air (just as odours are) if their forces and vertues be contrary, they destroy one another: which is call'd Antipathy. If the same be friendly, they unite and joyn together, the stronger attracting the weaker. Hence Iron doth not attract the Load-stone, but the Load-stone Iron. So when a Wolf sees a man first, the man loses his voyce, or, at least, becomes hoarse; because venomous spirits issue out the Wolfe's eyes, which being contrary to those which issue out of the man, inclose the same, and by hindring them to flow forth hinder them from forming the voyce. But when the man spies the Wolf first, his effluvia being foreseen hurtless, and have less power upon him, because the man encourages himself against them.

The Fifth said, 'Tis more fit to admire these secret motions (which depend only on the good pleasure of Nature, who alone knows wherein consists the proportion & correspondence which makes bodies symbolize one with another) then to seek the true cause of them unprofitably. And *Aristotle* himself confesses that he knew not whereunto to refer the Antipathy which is be-



tween the Wolf and the Sheep, so strange, that even after their deaths, the strings of Instruments made of their guts never agree together: as the feathers of the Eagle consume those of other Birds. Likewise, the subtle *Scaliger*, after much time unprofitably spent, acknowledges that he understands it not. They who go about to give reasons of it are not less ignorant, but more vain than others.

The Sixth said, Words are frequently abus'd; as for example, when 'tis attributed to Antipathy, that the Dog runs after the Hare; whereas 'tis for the pleasure that he takes in his smelling, which is an effect of Sympathy. But they who refer almost every thing to Occult Proprieties are like the Countryman, who not seeing the springs of a Watch thinks it moves by an occult vertue; or who being ask'd, why it thunders, answers, simply, because it pleases God. Wherefore instead of imitating the ignorant vulgar (who are contented to admire an Eclipse, without seeking the cause) the difficulty ought to inflame our desire; as we use more care and diligence to discover a hidden treasure; nothing seeming impossible to the Sagacious wits of these times.

The Seventh said, That, according to *Plato*, the reason of Sympathies and Antipathies is taken from the correspondence and congruity, or from the disproportion which inferior bodies have with the superiour, which according as they are more or less in terrestrial bodies, and according to the various manner of their being so, the same have more or less sympathy. For as inferior things take their source from above, so they have one to the other here below the same correspondence which is common to them with the celestial bodies: according to the Axiom, that things which agree in one third, agree also among themselves. Thus, amongst stones, those which are call'd *Helites* and *Selenites* (Sun-stone, and Moon-stone) are luminous, because they partake of the rayes of those Luminaries; and the *Helioselene* imitates by its figure the Conjunction of the Sun and Moon. Amongst Plants, the Lote or Nettle-tree, the Mari-gold and the Heliotrope or Sun-flower, follow the motion of the Sun. Amongst Solar Animals, the Cock and the Lyon are the most noble; and the Cock more than the Lyon; he alwayes gives applauses to the Sun when he perceives him approaching our Horizon or Zenith. Whereupon the Lyon fears and respects him: because things which are inferior to others in one and the same degree, yield to them, though they surpass them in strength and bigness; as the arms which fury hath put into the hands of a mutinous multitude, fall out of them at the presence of some man of respect and authority, though they be a thousand against one.

II.  
Whether  
Love descen-  
ding be  
stronger then  
ascending.

Upon the second Point it was said, Although this be a common saying, and it seems that Love ought rather to descend then



then ascend, yea that Fathers are oblig'd to love their children even with the hatred of themselves; yet I conceive that the love of children towards their fathers surpasses that of fathers towards their children; inasmuch as the latter proceeds from the love which the fathers bear to themselves, being desirous to have support and assistance from those whom they bring into the world, and in them to perpetuate their names, honours, estates, and part of themselves. But the love of children to Fathers is pure and dis-interested; as may be observ'd in many who, having no hope of a patrimony, love and honour their parents with most respectful kindness. Moreover, the supream authority and absolute power of life and death, which the *Romans* and our ancient *Gaules* frequently us'd against their children, shows their little affection. For, not to speak of those Nations who sacrific'd theirs to false gods, nor of *Manlius*, *Mithridates*, *Philip II.* King of *Spain*, and infinite others, who put them to death; Fathers anciently held them of worse condition than their slaves. For a slave once sold never return'd more into the Seller's power; whereas a son sold and set at liberty return'd thrice into the power of his Father. As also at this day, in *Moscovia*, *Russia*, and particularly in *Cyprus*, *Rhodes*, and *Candia*, where 'tis an ordinary thing for fathers to sell their sons to marry their daughter, which made *Augustus* say, having heard that *Herod* had kill'd his own son, that it was better to be the Swine than son of a Jew. But Patricide was unknown to ancient Legislators; and *Lycurgus* never ordain'd any punishment against such criminals, not imagining that such a crime could come into the mind of a lawful child, whom the Persians conceiv'd to declare himself a bastard by such an action. For that foolish custom which reign'd some time at *Rome* of precipitating men of sixty years old from the bridge into *Tyber*, is no sign of the cruelty of children towards their fathers, since they imagin'd that they did an act of piety and religion therein, by delivering them from the miseries of this life.

The Second said, None can know how great a love a father bears his children, but he that hath been a Father. Paternal tenderness is so vehement that all the passions and affections of the soul give place to it. Prudence and Philosophy may preach to us restraint and moderation; but a father's love, admitting no rule, caus'd a King of *Sparta* to run with a stick between his legs, a Grand *Cosmo* to whip a top, and the wisest of all the Grecians to play at Cob-nut, to make pastime to their children: experiences sufficient to gain the cause to paternal love, though it were not back'd by these reasons. 1. That love being the issue of knowledge, the more there is of knowledge the more there is of love. Therefore fathers having more knowledge than their children, have also more love. 2. As man desires nothing so much as immortality, so he loves that thing especially which procures the same to him; and hating death more



then any thing in the world, extreamly loves what seems to keep him from dying, as his children do, in whom he seems to revive. Whence also the Pelican feeds its young at the expence of its own blood. On the contrary, Man being the most ambitious of all creatures, hates nothing so much as to see himself subjected to another. Wherefore children, that the benefits which they receive from their fathers may oblige them to gratitude and subjections they perform the same indeed, but with much less love then their fathers. 3. God ha's given no commandment to fathers to love their children, knowing that they lov'd them but too much; but he hath to children, to love and honour their fathers, as having need to be invited thereunto even by promise of reward. 4. We naturally love that which proceeds from us, be it the most imperfect in the world. The Workman loves his work more then that loves him; as the Creator loves his creature better then he is lov'd by it. Moreover, we find in Scripture fathers who desir'd and obtain'd the raising of their children from the dead; but no child that pray'd God to raise his father; yea, one that desir'd leave to go and bury his. To conclude, our will is carri'd to an object by the opinion, true or false, which it conceives of it; and accordingly we see that a man's only believing himself to be a father inspires this paternal love into him, though he be not.

The Third said, In this sweet debate between fathers and children, I conceive the former ought to yield to the latter, as in all other cases the latter to the former. And as the whole goes not to seek its part, but the part its whole; so the child, who is part of his father, loves him more tenderly, and is more willingly lead towards him then the father towards his child. If fathers love their children because they resemble them, the resemblance is common to both, and so children shall love them as much for the same reason. And the being which fathers give their children is as much an effect of the love which they bear to themselves as of that which they bear to their children. Indeed, if love be a fire (as the Poets say) it must, according to its natural motion, rather ascend then descend; and if, in humane love, the lover is less perfect then the loved, the child who hath less perfection then the father, must be the lover, and the father the subject of his love. And this the examples of Filial love sufficiently manifest. For not to speak of *Æneas* who sav'd his father from the fire and sack of *Troy*, nor of *Amphinomus* and *Anapias* who went to draw theirs out of the midst of *Ætna's* flames; nor of *Cimon* the son of *Miltiades* who sold his liberty to redeem the dead body of his father (which was retain'd for debts) and to give it an honourable burial; nor of *Athamanes* King of *Crete*, who voluntarily brought death upon himself that he might prolong his fathers life, according to the answer of the Oracle; *Appius* alone decides the question. He had the choice of leaving either his father or his own family in  
evi-



evident danger, he chose rather to be a good son than a good father and husband, abandoning his wife and children to the proscription of the Triumvirate, that he might secure his father from it.

The Fourth said, It seems that Filial love is rather a payment of a debt, an acknowledgement of a benefit, and shunning of ingratitude, than a free and natural affection, such as that of the father is. Besides, he who gives loves more than he who receives. Yea it seems that he who began to do good is oblig'd to continue it, that his work be not imperfect. Now fathers give not only being, which nevertheless is the foundation of well-being, but also usually education, and their riches acquir'd by their labours; induc'd so to do by the sole consideration of honesty, upon which their love being groundd is much more noble and admirable than that of children, which is commonly establish'd upon the profit which they receive from their fathers.

The Fifth said, 'Tis not so much the being a father or a son that causes the amity, as the being a good father or good son: otherwise all fathers should love their children in the same manner, and all children their fathers; which do's not hold. Nature casts the seeds of it, co-habitation cultivates it, custom cherishes it, example fashions it, but above all, compassion enforces it. Thus fathers, seeing the weakness of their children ha's need of their aid, love them the more. And for this reason Grand-fathers love their Nephews more tenderly than their own children. And when fathers through sicknesses or decrepit age become objects of compassion to their children, their kindness is redoubled; but 'tis not usually so strong as that of fathers towards them.

### CONFERENCE XXXIII.

I. *Of those that walk in their sleep.* II. *Which is the most excellent Moral Virtue.*

Sleep-walkers, call'd by the Greeks *Hypnobaetæ*, are such, as, rising out of their beds in the night, walk about in their sleep, and do the same things as if they were awake; then return to bed again, and think not that they were out of it unless in a dream. This affection is rank'd under the symptomes of the animal faculty, and particularly of the common sense; and though it be not a disease, yet it seems in some sort to be against nature. For since men sleep for the resting of their senses and motion, and wake to exercise the same, whatever hinders and alters the one or the other, as to move when we should rest, is against

I.  
*Of those that  
walk in sleep.*



against nature. And if it be strange persons remain stupid when they are awake, as Exstaticks do, 'tis no less to see a man in sleep do as much, or more then if he were awake. I ascribe the natural causes hereof, 1. To the *Imagination* which receives the impression of objects, no less during sleep then waking; yea it represents them to it self much greater then they are; as it happened to him whose leg being become paralytical in his sleep, he dream'd that he had a leg of stone. Now these species being strong, act so powerfully upon the *Imagination* of the Hypnoticæ, that they constrain them to move and go towards the things represented therein. For though sense be hindred in sleep, yet motion is not, as appears by Respiration, which is always free; and by infants who stir in their mothers belly though they sleep continually. For the hinder part of the head, destinated to motion, is full of abundance of spirits, especially at the beginning of the Spinal Marrow, where there is a very apparent Cavity which cannot be stop'd by vapours, as the anterior part of the head is, in which the organs of the senses are, which being stop'd by vapours can have no perception during sleep. Wherefore 'tis groundless to say, with *Aristotle*, that sleep-walkers see as well as if they were awake; for 'tis impossible for one not awake to see, because visible objects make a more lively impression in their organ then any other; and a man asleep is not distinguish'd from another but by cessation of the sense of seeing. For one may Hear, Taste, Smell and Touch, without waking, but not See. 2. The thick and tenacious vapours seising upon the brain, and obstructing its out-lets, contribute much to this effect. For since the smoak of Tobacco is sometimes kept in our bodies two whole days, the same may happen to the gross and viscous vapours rais'd from the humours or aliments. 3. The particular constitution of their bodies is of some moment towards it, as an active, hot, dry and robust temper, a great quantity of subtile and brisk spirits, quickness of wit, a habit & custom of doing some action; as the Postilion who saddled, bridled, and rid his horse, asleep, and after making some careers brought him back to the Stable.

The Second said, Though, according to, *Aristotle* in the 5. Book of the Generation of Animals, there is some difference between a dream and this affection which causes men to walk in their sleep; because (saith he) a dream is when the sleeper takes that for true which is presented to him, though it be not so. But when one dreams that he is in a place, and is there indeed; and doth really that which he imagines; 'tis rather a vision then a dream. Nevertheless methinks their extraordinary motions may as well be referr'd to dreams as any other motions which are made in sleep, considering that they come from the same cause, are made by the same organs, and differ not but in degree. The one being made by a bare representation of the species, and the other by a strong impression. So that 'tis no more wonder to see a man rise out of his bed, walk, get upon the



the ridge of a house, climb a tree; and do other like things without waking; then 'tis so see another dreamer speak in his sleep, laugh, cry, stir his arms and legs; both of them being led thereunto by the same means.

The Third said, He wonder'd not so much to see a man walk in his sleep; considering that 'tis ordinary enough to those which travel, provided they walk in a plain and even way; as *Galen* records to have hapned to himself, he having gone almost a league in that manner, and not waking till he stumbled at the foot of a tree. But he wonder'd (indeed) how they perform'd their actions better in the night than in the day, and with more courage, and wake not during those violent motions and stirrings. The cause whereof is, as I conceive, that being awake they have a Reason which contradicts their Imagination and Appetite, and which having an eye over all their actions, the same are not so sure because they are less free in sleep, at which time the faculties of the Understanding being, as it were, consopited, the others are carried towards their objects with more certainty than when they are controll'd and restrain'd by that superior faculty; as we see servants are more brisk in their motions when they are out of their masters presence. They act also with more boldness, because having no knowledge of the present dangers they do not apprehend the same. Which is observ'd in fools and children, who do themselves less hurt in dangers because they apprehend them less. Lastly, the cause why they wake not during those great motions, although they swim over rivers, proceeds from the great quantity of those thick and glutinous vapours which stop the pores serving to the commerce of the spirits during the long time that they are dissipating; according as 'tis observ'd in drunkards or those that have taken somniferous medicaments, who by reason of the excessive vapours of the wine or drugs awake not, whatever be done to them. Whence the melancholy temper is most prone to this affection; because black choler which hath the consistence of pitch, sends its gross vapours up to the brain, and they are the most difficult to be resolv'd.

The Fourth said, If men left themselves to be conducted by their natural inclination without making so many reviews and reflections upon what they do, their actions would be much better and surer. For as where two Masters are, neither is obey'd; so both the superior and inferior appetite striving to command in man, neither the one nor the other is perfectly master. Besides, 'tis an establish'd order of nature; that things which have most proprieties and faculties have less certainty; those which have most certainty have fewest proprieties. Thus the Swallow makes its nest with more certainty than the Architect doth a house. The Vine more assuredly makes the Grape than the Swallow its nest; the stone more infallibly descends towards its centre than the Vine makes the Grape; because a stone hath only



only the first step of being; the Vine besides hath a Vegetative being; and the Swallow a Sensitive; but Man, who besides all these degrees hath Reason, endeavours to make use of all these several Utensils, and consequently makes use of none imperfection; as he who is skill'd in sundry Crafts discharges not any so well as he who addicts himself but to one. Now whilst a man is awake, the variety of objects and of the powers which are mov'd in him hinder him from performing so perfect an action; as when all the other faculties are bound up by sleep, the sensitive alone remains mistress.

The Fifth said, As there is but one straight line, and infinite crooked, so there is but one right manner of acting, and infinite oblique. The right line is, that a man perform all his animal functions only awake, the vital and natural as well asleep as awake. Deviation from this rule happens a thousand several ways. One is asleep when he should wake, another is unquiet when he should sleep. In a third, inquietudes are only in the spirits, the body remaining asleep. In some both the spirits and the body are agitated, only the judgement and reason are bound up. Some Morbifick causes go so far as to inflame the spirits; whence comes the Ephemera; others more vehement alter and corrupt the humours, whence the diversity of Fevers, and amongst them, Phrensies, in which you see bodies scarce able to turn in the bed, cast themselves out at a window; run through the streets, and hard to be restrain'd by the strongest. So great a force hath the soul when she gets the head of Reason, which serv'd as Bit and Cavesson to her. Indeed if Naturalists say true, that a spirit is able to move not only a Celestial Sphere, but the whole world it self, were it not restrain'd by a greater power; 'tis no wonder if the same spirit have a great power over a body which it informs, when it hath shaken off the dominion of Reason, as it happens in sleep-walkers.

The Sixth said, 'Tis probable that the more causes contribute to one and the same effect, the more perfectly it is done. Man being awake, hath not only the action of all his parts, but that of all his senses strengthned by the concurrence of spirits renders his parts much more strong and vigorous then when his is asleep. Reason assisted by daily experience avoucheth that he acts better waking then sleeping; and yet we see the contrary in the persons under consideration. Wherefore their agitation cannot be attributed to the soul alone which informs the body, but to some spirit good or bad, whether such as they call aerial Hob-goblins, or others; which insinuating into the body, as into a ship whose Pilot is asleep, governs and guides it at pleasure; and as a thing abandon'd to the first occupant, carries it where it lists, and then returns it to its former place. Witness the man mention'd by *Levinus Lemnius*, who walk'd with his feet against the Rafter, and his head downward, in his sleep; the cause of which cannot, with likelihood, be attributed to our spirits how light and aerial soever they may be.

Upon



Upon the Second Point it was said, That they who speak best in all professions, do not act alwayes so; saying and doing seem to be so balanc'd, that the one cannot be lifted high without depressing the other. Which was the cause that the Architect who spoke wonders was pass'd by, and he chosen who onely said that he would do what the other had spoken. Hence it is we so often desire that things could speak of themselves. Justice would come in another garb then as she is painted, blind-fold, with her scales and sword. Fortitude would display other effects then that pillar which she is made to carry upon her shoulder; and Temperance other examples then that of pouring Water into her Wine. Prudence would have other attire and allurements then those which her Looking-glasse represents. In brief, the whole train and Court of the four Cardinal Virtues, Magnificence, Liberality, Patience, Humility, Obedience, Friendship, and all the other Moral Virtues, would set forth all their attractives, and make it confess'd that they are all charming and so link'd together, that who so would be happy must be possess'd of them all. But since I am oblig'd to give the preheminance to one, I shall prefer Liberality, which wears the Epithete of Royal, and is the aptest to win the hearts of all the world.

II.  
Which is the  
most excellent  
Moral Virtue

The Second said, All the Virtues here in question touching their preheminences, accepting you for Judges of their Controversie, in hope you will do them Justice, seem already to condemn themselves, by giving their voice implicitly to Justice, whom they implore as their Sovereign. Moreover, in the Scripture the name alone of Justice comprehends all the other Virtues, and he is term'd Just who is possess'd of them all. *Aristotle* styles it, All Virtue, and saith, with his Master *Plato*, that 'tis more bright and admirable then the Day-star. 'Tis the more excellent, for that it especially considers the good of others, and not its own particular. For 'tis defin'd, and a constant stedfast will of rendring to every one that which belongs to him; not that 'tis the *Will*, which is a Faculty, and being capable of contraries, can do well and ill; but because 'tis the noblest habit of this Faculty, therefore it retains its name. So the most excellent habit of the Understanding, whereby to know the first Principles, is call'd *Intellect*. *Pythagoras* compares Justice to the number of Eight. For as this is the most perfect number, and hath most equality, all its parts being equal; so Justice is the perfectest of all Virtues, because it gives them their equality and measure in which their perfection consists. And like as the most perfect state of our Health consists in the perfect equality of our Humours, which for this reason is call'd, the *temperament according to Justice*; so the most perfect state of the Soul consists in this habit which gives equality and mediocrity to all our virtuous actions. But though Justice be the ornament of Virtues, yet it is parti-



cularly so of Kings, and therefore ours, among all the Virtues whereof he hath taken possession, ha's particularly reserv'd to himself the title of *J V S T*.

The Third said, I account Prudence not onely the most excellent but the sole Virtue; yea, the condition without which all other Virtues lose their name. The Philosophers were not contented to establish it for one of the Cardinal Virtues, they make it the salt which preserves and gives taste to all the rest, without which they would be disagreeable, yea, odious to all the world. For too exact Justice carries the name of highest Injustice; Fortitude becomes Violence, and Temperance applies it self ill, without Prudence. Hence it hath chosen for its Object Reason alone, which it divides to the other Virtues. So that a Man who do's all his actions, having Reason alone for his guide, shall be call'd prudent; but other Virtues do not regard reason further then as it leads them to a particular thing. Now when Reason renders to every one what pertains to him, this Prudence is call'd Justice: When the same Reason moderates the Passions, this Prudence is called Temperance; and when it passes above all dangers, 'tis called Fortitude. So that the Objects of the three other Virtues being good, onely as they partake of that of Prudence, this must be without comparison the most excellent. The Ancients for this purpose represented it by an Eye, to shew that this Virtue hath the same preheminance over the rest, which the Eye hath among the parts of the Body.

The Fourth said, If place makes any thing for the nobleness of Virtues, Prudence will have the advantage, since it resides in the noblest Faculty of Man, the Understanding. But if we regard the end of Moral Virtues, which is civil felicity, and from whence alone their nobleness is to be measur'd, as the means by their end; tis certain that an honest Friendship founded upon Virtue is the most noble, because more proper then any other to procure that felicity, yea, alone sufficient to obtain it. For if all were perfect Friends, Justice would not be needful, none denying to another what belong'd to him; and if all were just, there would be no necessity of using force. Moreover, of all the Virtues, there's none but Amity alone which hath no Excess; this shews that it is wholly excellent. How much ought we to love? infinitely if it be possible. Justice hath an excess, which is severity; but because it follows it in dignity, 'tis no Vice. Prudence, Temperance, and the other Virtues which come after, have their vicious excesses. This Virtue of Friendship is the most rare, being found onely amongst good people, who are so few, that all Antiquity scarce affords ten couple of perfect Friends. A scarcity which attests its value. For we must beware of comprizing under the name of this Friendship the Passion of Love, or profitable and delightful Friendship, which have nothing of it besides the name. Because true Friendship considers onely another,



another, but the other virtues have onely self-reflections, though they make shew otherwise.

CONFERENCE XXXIV.

I. Of Lycanthropy. II. Of the way to acquire Nobility.

There is a sort of Wolves call'd 'by the Greeks *Monolycei*, and by *Aristotle*, *Monopiri*, that is to say, solitary, never preying but alone, great lovers of Man's Blood ; we call them *Garoux*, possibly because they wander and roame about the fields, as the Greeks name those *Lycanthropi* who are possess'd with that kind of Madness which makes them do the same as if they were Wolves indeed. Such is that people of *Livonia*, which, as *Olaus* in his Northern History relates, change themselves into Wolves, and on Christ-mass day exercise many cruelties even upon little children ; and those who, in our time, confess that they have put on the shapes of Wolves, Lyons, Dogs, and other Animals, that they might exercise their cruelty upon Men with impunity. For I am not of their mind who think such transformation is made by natural causes. To which neither can that be attributed, which the Scripture relates of *Nebuchadonozor* K. of *Babylon*, who became an Ox, and ate the grass of the field for the space of nine years, and afterwards resum'd his former shape ; that the rods of the Ægyptian Magicians were turn'd into Serpents, as well as that of *Moses* ; that *Lot's* Wife was chang'd into a Statue of Salt ; no more, then the most fabulous metamorphoses of *Niobe* into stone, *Lycaon*, *Demarchus*, and *Mæris*, into Wolves ; the companions of *Ulysses* into sundry Animals by the Enchantress *Circe*, those of *Diomedes* into Birds, *Apuleius* into an Ass ; that an Ægyptian Lady became a Mare, and was restor'd into her former shape by *S. Macarius* the Hermite, as the Historian *Vincent* reports in his 18. Book. Seeing a Rational Soul can not naturally animate the Body of a Wolf. The least distemper of our Brain suffices to hinder the Soul from exercising its functions, and can it exercise them in that of a Beast ? 'Tis more credible that some evil Spirit supplies the place, and acts the part of the Sorcerer who is soundly asleep in his Bed, or in some other place apart from the commerce of Men. As it happen'd to the Father of *Præstantius*, mention'd by *St. Augustine* in his Book, *De Civitate Dei*, who awaking out of a long and deep sleep, imagin'd himself to have been turn'd into a Horse, and carry'd provisions upon his back to Soulders ; which he obstinately believ'd, though his Son assur'd him that he had not stirr'd out of bed. Nevertheless the thing was verifi'd by witnesses ; but it was done by an evil Spirit, who on the one side personated

I.  
Of Lycanthropy.



him abroad, and on the other so strongly impressed those species upon his Phancy, that he could not be dissuaded from the error. For otherwise, how should the Sorcerer reduce his Body into so small a volume as the form of a Rat, Mouse, Toad, and other such Animals into which it sometimes is turn'd. Now if it happens that the wound which the Devil receives under that form, is found upon the same part of the Sorcerers Body; this may be attributed to the action of the same evil Spirit, who can easily leave his blow upon such part as he pleases of the Body which he possesses. For want of which possession, all his designs upon those whom he would injure become ineffectual notwithstanding the imposture of all their waxen Images. But if 'tis the Sorcerer himself that hath the form of a Wolf, either he clothes himself in a Wolf's skin, or else the Devil frames a like Body of Vapours and Exhalations, and other materials (which he knows how to choose and can gather together) with which he involves the Sorcerer's Body, and fits the same in such manner, that the Eye of the Beast answers to that of the Man; and so the other parts, according to the measure requisite to represent a Wolf. Or else that subtle Spirit deludes our Eyes.

The Second said, If the Proverb be true, That one Man is oftentimes a Wolf to another, we need not recur to extraordinary causes to find Men-wolves. Now the word Wolf is here taken for mischievous, because the wealth of the first Ages consisting in Cattle, they fear'd nothing so much as the Wolf. As for the causes of this brutish malady, whereby a Man imagines himself a Wolf, or is so indeed, they are of three sorts; the biting of a mad Wolf, the atrabilarious humour, or the Imagination perverted. It seems at first very strange, that a drop of foam entering into the flesh of a Man at an orifice made by the point of a tooth, should have the power to convert all the humours into its own nature. But seeing the stroke of a Scorpion which is not perceivable to the sight, kills the strongest person, that admiration ceases at the comparison of a thing no less marvellous. For 'tis no more wonder that the humour which issues from an Animal imprints its Image other where, then that it kills an other. When the foam drop'd from a mad Wolf produces its like with its furious spirits, it doth nothing but what other animate bodies with other circumstances, do. Thus the kernel of the Pear or Apple, which subverts our Senses, (call'd therefore *malum insanum*) so well contains in power the Pear or Apple-tree which produc'd it, that it reproduces another wholly alike; yea, the salt of Sage, Marjoram, Baum, and some others being sown, produces the like Plants without slip or seed. The atrabilarious humour sending up black and glutinous fumes into the brains of melancholy people, not onely make them to believe that the species represented thereby to them are as true as what they see indeed, but impress an invincible obstinacy in their Minds; which is proof against all reasons to the contrary,



contrary, because Reason finds the Organs no longer rightly dispos'd to receive its dictates. And if he who sees a stick bow'd in the water can hardly rectifie that crooked species in his Common Sense, by reasons drawn from the Opticks, which tell him that the visual ray seemes crooked by reason of the diversity of the *medium*; how can he whose Reason is not free be undeceiv'd, and believe that he is not a Wolf, according to the species which are in his Phancy? But can the Phancy alone do all this? He who feign'd, and frequently pretended that he was one-ey'd, by the power of Imagination became so indeed; and many others whom Phancy alone makes sick, and the fear of dying kills, sufficiently shew its power, which causes that these distracted people perswading themselves that they are Wolves, do the actions of Wolves, tearing Men and Beasts, and roaming about chiefly in the night, which symbolizes with their Humours. Not but that a fourth cause, (namely, evil spirits) interposes sometimes with those natural causes, and particularly with that gloomy black Humour, which for that reason Saint *Jerome* calls Satan's bath.

The Third said, That besides those causes, the food taken from some parts of Aliments contributes much to hurt the *Imagination* of Men in such sort, that they account themselves really brutes. Thus a Maid of *Breslaw* in *Silesia* having eaten the brain of a Cat, so strongly conceited her self a Cat, that she ran after every Mouse that appear'd before her. A Spaniard having eaten the brain of a Bear, thought himself to be one. Another that had very often drunk Goats milk, fed upon grass like that Animal. Another who had liv'd long upon Swines blood, rowl'd himself in the mire as if he had been truly a Hogg. And 'tis held, that especially the arterial blood of Animals, as containing the purest of their Spirits, produces such an effect. But to believe that these changes can be real, is repugnant to Reason, and the order which God hath establish'd in Nature; in which being nothing can act beyond its bounds, 'tis impossible for Devils to have the power to make a transmutation of substances. For though they have some power upon natural bodies, and even upon Men, to try the good, and punish the wicked; yet the same is so limited that as they cannot create a Hand-worm, so much less can they change substances and transform them into others, which were to annihilate and create both together. Besides, 'tis repugnant in regard of the Form, which cannot inform and actuate any matter but that which is prepar'd and dispos'd for it. Wherefore these transformations are either to be attributed to the Phancy alone, which being perverted makes some conceit themselves not only beasts, but glass, earth, & other absurd things; or else they are to be deduc'd from the depravation of manners. For, as in the Heroical State Men approach'd the Deity, so in that of ferity they come near to the nature of beasts, differing therein according to each Vice. In regard of their voluptu-

cousness



ousness the Companions of *Ulysses* were accounted Swine; for his Cruelty, one *Lycaon* a Wolf; for their voices and thieveries, the Companions of *Diomedes* transform'd into Birds; the Learned taking that metaphorically which the vulgar doth literally.

II.  
Of the means  
to acquire  
Nobility.

Upon the Second Point it was said, There are as many wayes of acquiring Nobility as there are several kinds of it. That which comes by descent, and is called *Civil*, is not acquir'd, but onely preserv'd and upheld by the resemblance and correspondence of our laudable actions with those of our Fore-fathers: It begins in him who is ennobled, encreases in the Children, is perfected in the Nephews, and lyes in the common opinion, that the generous beget a generous off-spring. That which comes from Riches is acquir'd by industry and good husbandry. That which attends Ecclesiastical Dignities comes from Learning, Piety, and Favour. Thus the Cardinals are Princes, and the Nephews of Popes are Sovereigns, in *Italy*. The Doctoral, which extends to Physicians and Lawyers, the Body of whom the Emperours call the Seminary of Dignities, (declaring them Counts, that is, Counsellors and Assessors of Kings) after exercising their charge twenty years, comes from study, knowledge, and experience. The Military, from Courage and Valour. That which is obtain'd by the grace or favour of a Prince, whether it be by granting a Fief or Mannor, which alone ennobles its possessor, or not, is acquir'd by merit, and the services done to him. They who desist from all mechanick and sordid action may become noble by virtue of the Prince's Letters. That which comes from the Custome of places is obtain'd by administration of the chief Magistracies in a City, to which the Officers are admitted by Election, as the Capitouls or Sheriffs at *Tholouse*, and at *Poitiers*, and *Maires*; and *Scabins* were ennobled by the privilege of King *Charles V.* where we must not confound the ancient Chevalry, which are the Gentlemen, with the newly ennobled, who may indeed be call'd *Nobles*, but not Gentlemen.

The Second said, The Sacred History gives the first Nobility to Hunters, when it saith that *Nimrod*, who was the first King upon Earth, was a mighty Hunter. *Aristotle* gives it to such as excell in any Art or Exercise, whom he saith are so many Kings in their profession. Many, to the Inventors of things profitable to Humane Society; and indeed Antiquity plac'd such in the number of the gods. Experience causes us to add a fourth sort of persons, whose Bodies, or Minds, or both, are endu'd with such gentle and winning perfections, that in whatever condition they be, even the meanest, that they discover a connatural Nobility through it, and differ as much from the vulgar, as precious stones from others; (to use *Ronsard's* comparison) who saith, that when *Deucalion* and *Pyrrha* repair'd Mankind,



mankind they threw precious stones to make the Nobility, and common stones, to re-people the world with the vulgar. *ol 197.*

The Fifth said, That true Nobility cannot be acquir'd but by arms, which are the only original of ancient Nobility. For since more hazards are to be undergone in war then in time of peace, it was necessary to sweeten the toil of arms by annexing Nobility more inseparably to them then to any other exercise : to the end, that the life of Warriors being usually shorter then that of others, by reason of the dangers whereto it is subject, they may, in recompence, live with more honour. Otherwise there's none but would prefer the shadow and ease of Cities before the travels and hardships of the Campaigne : whereas the most desirous of honour prefer above any thing that guerdon of warlike vertue which is in the hand of Sovereigns, who, as *Solon* saith, hold the life, honour, and estates of men, of whom they make some *Deniers*, others *Millions*, according as they dispose the same.

The Fourth said, There's no true Nobility besides that of extraction, this being unanimously receiv'd in all States, yea amongst the most barbarous Nations. 'Tis for this reason defin'd by the Civilians, an Illustriousness of Lineage, and splendor of Ancestors, with succession of Coat-Armour and Images, confer'd upon some person, and through him to his Family, by the Prince, Law or Custom, in reward of Vertues which are serviceable to the State and humane Society. And although such vertues are proper and particular to their Possessor ; yet as the dishonour and infamy which follow Vices and Crimes reflect upon Descendants : so the Nobility which follows those vertuous actions, and is nothing else but the honour and reward which accompanies them, is diffus'd also to Posterity, and like the streams of Springs (less considerable in their original) is increas'd by time ; and the more remote it is, the more it is esteem'd ; the highest priz'd being that which is like *Nilus*, whose rise is unknown. Thus, the Athenians glory'd that they were Autocthones, or sprung from the Earth ; because their Nobility was so ancient, that they affirm'd it impossible to assign the first Author of it : for which reason they wore golden Cockle-shells at their hair, because these Insects never relinquish the place of earth whence they took birth. As the Arcadian Nobles wore Moons in their Hats, and the Romans Crescents upon their shooes, but for several ends ; the former intimating thereby that they were a people as old as the Moon, and the latter denoting, by this figure of the changeable Moon, the inconstancy of Woman, which sometimes abases the most illustrious, and raises the most abject Families.

The Fifth said, That Nobility depends not only on opinion, as they seem to conclude who have no other ground of it ; but it hath its foundation in a solid and real cause, namely, in the proper merit and peculiar actions of every one. So that, to  
speak



speak accurately, 'tis no more in the power of any one what-  
 ever to ennoble an unworthy and undeserving person, then to  
 make a Heroe illustrious in vertue of a vicious man, or a wise man  
 of a fool. Nor doth it arise from riches, which though the or-  
 nament yet are not the cause of Nobility. For whereas a rich  
 Yeoman is admitted to publick Offices rather then a poor Gen-  
 tleman; 'tis because the former having more to lose then the  
 latter, hath also more interest in the preservation of the com-  
 mon good, and consequently is presum'd more careful that all  
 go well with it. Ease and occupation are of no more moment.  
 For our first Father, from whom we derive our Nobility, and  
 his Children, were Labourers; *Noah* was a Vine-dresser; *Saul*  
 and *David* Kings of *Israel*, Shepherds; and at *Venice*, *Florence*,  
*Genna*, *Luca*, and other places of *Italy*, the Nobles are for the  
 most part Merchants; though in other Countries that employ-  
 ment is derogatory to Nobility. For as 'tis not in our power to  
 be borne either of noble or mean Parents; so ought not either  
 be imputed to us as commendable or blame-worthy; since  
 praise and dishonour are rightly attributed to us only for what  
 lyes in our ability, as our good or evil actions do. For being  
 'tis no advantage to a blind man to have quick-sighted parents,  
 or to a gouty son to have a father of sound limbs, why should it  
 be any to a wicked son to have an honest man to his father? on  
 the contrary, it ought to turn to his reproach, that he hath not  
 follow'd the way which he found already beaten. For as good  
 wheat is oftentimes chang'd into Darnel, so the children of illu-  
 strious men are ordinarily lewd slip-strings; witness the children  
 of *Cicero*, *Æsop*, *Cimon*, *Socrates* and *Alcibiades*. On the con-  
 trary, many times the greatest personages are the issues of the  
 most infamous and abject. Wherefore the seeds of Nobility  
 (namely our actions) being in our selves, the most certain way  
 of acquiring is to do such as are good and vertuous. True it is,  
 those of war are most in esteem, because most persons are capa-  
 ble of them. Yet excellent civil actions ought to be accompa-  
 ni'd with the good hap which may make them known and re-  
 commendable to the Prince; otherwise they are as a light hid  
 under a bushel. But if all these conditions meet in any one  
 whom the vertue of his Ancestors hath dignifi'd to be of an illu-  
 strious Family; this excellency of descent renders his vertue  
 more acceptable; and this Gentleman's condition is like that of  
 a child upon a Gyant's shoulders, who sees all that the Gyant  
 sees, and also over his head. He hath all the Nobility of his  
 Fore-fathers, and besides, that which is properly his own. To  
 conclude, if the blood of our Ancestors is the body of Nobility,  
 our vertue is the soul of it.



CONFERENCE XXXV.

I. Of feigned Diseases. II. Of regulating the Poor.

AS man is the most wilie of all creatures; so he best knows how to dissemble and represent another personage then what he is indeed. But external signs accompany and follow their effects as necessarily as they are preceded by their causes; he cannot so artificially cover his duplicity but it will appear, and his retentions betray themselves. It is as difficult to him to dissemble fear, anger, hatred, envy, and the other passions, when they are real, as to counterfeit them when they are not. The same may be said of Diseases as of the passions of the body. As 'tis almost impossible to dissemble a true Gout or a Fever; so 'tis very hard to feign a Disease when one is in perfect health. They who counterfeit the same are of two sorts. People of quality, and Beggars. Of the first order are many Generals of Armies, who have feign'd themselves sick, that they might surprize their enemies who supposed them in bed; and such as cover with malady that of cowardize; or do it to avoid being present at Assemblies. Thus *Demosthenes* pretended a Quinzy, that he might not plead against one accus'd of Defrauding the State, by whom he was corrupted with presents. Of the second sort are they who to avoid the labour common to others, or to cause themselves to be pitied, make semblance of having, one a Leprosie, another the Falling-sickness, a third the Jaundies, and infinite other maladies which they have not, or having some light ones amplify and continue the same. Such was the invention of an Italian Souldier of late years, who feign'd himself troubled with certain fits caus'd by the biting of a *Tarantula*, crying out of extraordinary pain, except when the Musicians play'd; for then he fell to dancing after the same manner as he had heard those use to do who have been hurt by that creature. Physick, to which alone pertains the discerning of these feign'd Diseases, employs, to that end, this maxime of Geometry, that a right line serves for a measure not only of straight things, but also of oblique. So the perfect knowledge of real Diseases enables us to find out counterfeit. 'Twas by this means *Galen* discover'd the imposture of a Slave, who to excuse himself from following his Master in a long Voyage, because he was loath to leave his Mistress who was at *Rome*, made his cheeks swell with the root of *Thapsia*, and pale with the fume of *Cummin*. For *Galen* seeing no other signs agree with these two, cur'd him only with a Refrigerative, whereas a true defluxion requir'd other remedies.

The Second said, Maladies of body or mind are feign'd  
E e by



by people, to decline some burdensome charge and commission, or some evident danger. Thus *Ulysses* counterfeited himself foolish, to avoid going to the Trojan war; and *David* being pursu'd by *Saul* made himself appear distracted to King *Achish*. The young wife mention'd by *Martial*, being married to an old man, counterfeited the Hysterical Passions which she found a way to deceive her jealous husband. Such pretences are sometimes us'd to retard an execution of death, or else in a civil matter to be freed from prison; and many times those things which afford signs to the Physicians are so exquisitely order'd, that the most subtle are over-reached. One makes his Urine black with Ink, or red with Oker, or yellow with Saffron; another applies the root of *Ranunculus* to his groyn, or some other Emunctory, to counterfeit a Carbuncle; another provokes vomiting by some Emetick, which by that means will cause extraordinary agitation in his Pulse, and give appearances of a pestilential Fever; or else make so streight a ligature on the upper part of his arm that his Pulse will not beat at all; as *Matthiolus* reports an ancient Physician serv'd to confirm the fraud of a Mountebank who us'd that trick to make people believe that being almost dead he was revived by his Antidote. But the most ordinary impostures of this kind are those of Beggars; some of whom fume their faces with Brimstone that they may appear pale. Others rub themselves with the flower of Broom, or the seed of *Carthamus*, to seem yellow; or else black themselves with Oyl and Soot, to appear struck with Lightning. Which disguisements are easily discover'd by rubbing them with Sope; for it takes off all the superficial colours, and leaves none but the natural caus'd by the humours. Others get some body to make a hole neer their ears, or some other place, and blow strongly thereinto between the flesh and the skin, that so being puffed up they may be taken to have a Dropsie. One of the hardest cheats to be discover'd was that of a Jugler of *Flanders*, who every morning, having first stopp'd his fundament very exactly, swallow'd down half a pound of Butter and some Quick-silver after it: which put him into such hideous motions and gestures, that every one judg'd him posselt. At night he unstop'd himself, and voided his Devil backwards.

The Third said, That a Fever may be caus'd by rubbing the Pulse with Oyle in which the horned Beetle hath been boil'd, or by applying Garlick to the fundament. And that the Herbs, *Spear-Crowfoot*, *Bryony*, *Turbith*, the juice of *Tithymal* or *Spurge*, *Yew*, and many other caustick simples, serv'd them to make Ulcers, which are easily discernable to be artificial. But of all feign'd maladies, the hardest to be known, and the easiest to counterfeit, is Folly, like that of *Solon*, *Brutus* and many others; for the most incurable folly is that which imprints fewest signs upon the body; and there are stark fools who have intervals, during which their minds are as clear and serene as the wisest.

The



The Fourth said, 'Tis usual for those who complain of one another, after a scuffle, to pretend themselves not only more injur'd then they really were, but also wounded when they are not; but especially women big with child are apt to be guilty in this kind. He said, that a certain lewd fellow having outrag'd one of his companions almost unto death, yet so that there appear'd no wound or impressi<sup>o</sup>n of cudgel or other weapon upon his body; for that he had beaten him with a long sack fill'd with gravel; which not making the contusions suddenly apparent, he caus'd him to be visited and search'd immediatly, and himself made greater complaints then he. So that had it not been for the wile of the Surgeon who silene'd this bawler by threatning to trepan his head for the easing of these pains whereof he complain'd, the Judges were hugely at a loss whom to charge with the wrong. Which shews how difficult it is to distinguish true maladies from feigned.

Upon the second point, it was said, That there are three sorts of poor, some really are, and so call themselves; others call themselves so but are not; and others who though they are so yet do not speak of it. The first are the poor, become infirm through disease, age, or other inconvenience; for whose relief and support Hospitals are design'd. The second are the strong, who cannot be term'd poor so long as they have arms to gain their livings. The third are the bashful poor. Their disorder is general; but that of the strong hath most dangerous effects. And inasmuch as an evil must be known before remedied, it may be said that these Beggars are the most dangerous pest of States; whether they be consider'd in reference to God, us, or themselves. They speak not of God but to blaspheme him; they abuse his Sacraments, and are profess'd breakers of his Commandments. For God said to man, *Thou shalt eat thy bread in the sweat of thy countenance*; but they devour the bread of others without doing any work. There shall be no Beggar amongst you, saith God; but they make a trade of it, and come even to the Altars, to interrupt people's devotions. In respect of us, they are the ordinary Seminary of the Plague; by their nastiness and infections, which they bring even to our doors; of war too, it being always easie, upon the least discontent, to list such people, who are ready to do any thing you will put them upon, without fear of punishment, from which poverty is exempted; of Famine also, these idle bellies, and unprofitable burthens of the earth, being as unapt to cultivate it and other arts which bring good things to men, as they are insatiable in devouring them. Yet they do less hurt to others then to themselves, leading a dead life, yea a thousand times worse then death, through the miseries into which their idleness involves them. Now it imports the publick no less to remedy their slothfulness, then it doth the humane body to suffer a paralytical member, under pre-

II.  
Of regula-  
ting the Poor.



text that it is less noble than the rest. I conceive therefore that 'tis fit to constrain sturdy Beggars to work, by keeping them close, and chastising them; yea, to send them to the Gallies, according to the Ordinance of *Francis I.* rather than suffer their disorders.

The Second said, That Hospitality towards the poor hath been ever in so great esteem, that Pagan antiquity made a principal title of it to the greatest of their Gods; and conceiv'd them parallel crimes, to cast the Altar out off the Temple, and to remove mercy out of man's breast, it being so proper to him that it is therefore term'd Humanity; as inseparable as his very being. Nor is there any thing in the world but invites us thereunto by its example. The Guardian Angels and Celestial Intelligences take care of men; the soul immediately sends an affluence of blood and spirits to a wounded part; the principles of nature, how incomplete soever they be, cannot endure *privation*, which is the image of Poverty: and the Celestial bodies include in their circumference, warm by their motion, enliven by their light, and adorn by their influences, all the inferior bodies. The Principal amongst them, the Sun, the poor-man's fire, and the type of charity, communicates his light and his heat indifferently to all the world. The Elements use violence, and destroy themselves, rather than endure a vacuity in nature. Metals, the richer they are, the more they are dilatable. Plants which cannot uphold themselves are propt up by others more robust. In brief, all Beasts are frighted at the sight of those of their kind, if they be dead or in any misery. *Suidas* tells us that there is a bird called *Cynle*, which being unable to build a nest by reason of its weakness, is welcome into those of others. But though every thing should not preach this doctrine to us, yet seeing men, how different soever in their belief, all agree in having care of the poor; that Charity is to out-live all other Christian virtues; and that our Lord in his sentence of eternal life and death was pleas'd to use no other reason than this of having given or deny'd alms to the poor, whom he calls *himself*; all this would sufficiently manifest that no greater care ought to be had in any case than in this.

The Third said, that the point in hand was not so much to commend as to determine Charity, and to know whether of the two sorts of Alms (mention'd by *S. Austin*) Bread, or Discipline, is to be given to every poor person, the latter being oftentimes more profitable for them than the former, which, as a Lacedemonian told *Diogenes*, frequently do's hurt in stead of good; for the giving to a stout Beggar encourages him to accustomed laziness. But on the other side, being Charity is not suspicious, it seems that it ought to be little material to the giver of an Alms, whether the receiver be worthy of it or no, provided he give it with a good intention, according to his power, and without vanity, so highly blamed by our Saviour.

The



The Fourth said, That the poor ought to be left as they are; and 'tis enough for us that we relieve them with our Alms, according to our ability. Experience shews that it has been a fruitless attempt in our days to confine and discipline them; whatever care could be us'd by such as were intrusted therein. But since Poverty is no vice, why should it be punish'd with imprisonment? Besides, our Lord having told us that we shall always have the poor with us, implies that there will always be poor. Yea, were the thing possible, yet it ought not to be put in execution, since charity will become extinguish'd by losing its object. For present objects have most power upon us in all cases, and 'tis not credible that he who scarce feels himself touch'd with compassion at the sight of a wretch languish at his door, would think of the poor when they no longer occur'd to his view.

The Fifth said, That although we are always to have the poor with us, yet 'tis not thence to be inferr'd that Begging ought not to be restrain'd, should the one include the other, as it doth not; no more then 'tis a good consequence that because scandal must necessarily come to pass, therefore 'tis not lawful to hinder it; or that because the good designs of pious persons which have labour'd in this godly work, have not succeeded in one time, therefore they cannot at another. But to shew how easie it is to take order for the regulation of the poor, 'tis manifest that almost all forreign Countries have made provision therein; many whereof, when they come to fetch away our corn, justly wonder how we suffer such a multitude of Beggars, considering what order they take with them in their publick penury. Yea, the City of *Lyons*, whose territory is none of the most fertile of *France*, and by its example divers other Cities, have already made provision for them. I conceive, therefore, that 'tis easie not only for this populous City of *Paris*, but for this whole Kingdom, to do the same. Now that may be apply'd to this regulation which *Æsop* said to those with whom *Xanthus* laid a wager, that he would drink up the whole Sea; namely, that he could not do it, unless they first stop'd the course of all the rivers which empty themselves thereinto: so neither is it possible ever to regulate the flux and reflux of poor which come by shoals from all parts of *France* into this gulph, or rather *Parisian* sea, without prohibiting them entrance into the same; which cannot be done Christianly, nor indeed politickly, without taking care for redress of their miseries, in those places which they abandon. To effect which, we must imitate Physicians, assuage the most urgent symptoms, and remove the concomitant cause, yet not forgetting the antecedent, nor the general remedies; since, as *Aristotle* saith, he that would purge the eye must purge the head. The robust poor must every one be sent to the place of his birth, if he knows it, or will tell it: by which means the burden will become lighter being divided:



divided: there they must be distinguish'd according to sex, age, conditions, ability of body and mind, capacity and industry, that so they may be distributed into the several employments whereof they shall be found capable; with absolute prohibition not to beg or wander from one place to another without permission in writing from him who hath the charge of them, under the penalty of the whip; as also the people being forbidden, under a fine, to give Alms elsewhere then at the places appointed for that purpose. The children of either sex must be put out for some certain number of years to Masters and Mistresses that will take charge of them. Likewise such fellows as understand any Mystery or Craft shall be dispos'd of to Masters; to whom, upon that account, and to all those who shall have the care of such poor, shall be granted the most priviledges and immunities, both Royal and Civil, and of Communities, that the rest of the inhabitants of the place can allow. Out of the body of which inhabitants shall be chosen, from time to time, the most considerable persons to govern them, who shall not be admitted to the highest Offices without having first pass'd through this. Such as are able to do nothing else shall be employ'd in publick works, repairing of Bridges, Banks, Causeys, or Buildings, at the charge of the Proprietors. And, to the end, that all these poor may find a livelihood, they shall buy all their Victuals one of another, and have certain Counters instead of money peculiarly current amongst themselves. Aged persons incapable of labour shall have the care of the little children. Such as are fit to travel shall be sent to the Plantations of *New France*. But all this with such restrictions and modifications as the circumstances of each place shall require. This design will be much further'd by new inventions, by working at Mills, by combing old wool and stuffs; by cleansing the streets by night, and many other occupations.

### CONFERENCE XXXVI.

I. *Of the tying of the Point.* II. *Which is the greatest of all Vices.*

I. *Of the tying of the Point.* **T**HIS obstacle, proceeding from the jealousy of Corrivals, or Covetousness of Parents, is a Ligature, by which, with certain words pronounc'd during the nuptial benediction, a man becomes incapable of rendring to his wife the legitimate duty of Marriage. This kind of enchantment is, as all others, of the Devil's invention, who bearing an irreconcilable hatred to man, endeavours all he can to hinder the fruit of generation and of the Sacrament of marriage, by which man acquires that immortality in his species and his successors, which that evil spirit caus'd him to



to lose in his individual. 'Tis one of his old impostures. *Virgil* speaks of it in his eighth Eclogue, where he makes mention of three knots made with three ribbands of different colours, and of certain words of enchantment. *S. Augustine*, in the second Book, and twentieth Chapter, of Christian Doctrine, declaims against these Sorceries. Our *Salick Law*, tit. 22. sect. 4. makes mention of some Sorcerers who hinder issue by ligatures. In our time this kind of *Maleficium* hath been so common that it would be ridiculous to call the experience of it in question. But since the author of it is the spirit of darkness, 'tis no wonder that we see not a whit in the inquiry of its causes.

The Second said, That he could not attribute this impediment of generation to charms and enchantments, but rather to the power of the *Imagination*, which is of great moment in this case; as we see also in Love or Hatred, which, though by several ways, render a man incapable of this action. For if one be solicited by a woman whom he thinks unhandsome and hates, he cannot satisfy her, because sadness makes his spirits to retire. Another being surpriz'd with the enjoyment of some rare beauty, becomes alike impotent, because joy dissipates the same spirits. The desire of doing well, and the fear of failing, are also frequently obstacles to it; witness the impotence of *Ovid*, *Regnier*, the man mention'd in *Petronius*, the Count spoken of by *Montague*, and many others. Now these passions making an impression in the Phancie, disturb and hinder it from moving the Appetite, and consequently the motive faculties, depriving them by this means of their ordinary functions.

The Third said, There are two sorts of Impotence, one natural, and the other supernatural. The first happens two ways; either through want of matter, which is the geniture and spirits, or through defect of emission. The former (not to mention the parts serving to generation) happens through the extinction of virility, and that by reason of old age, sickness, violent exercises, aliments or medicaments cold and dry, and generally by all causes which dissolve the strength, and dissipate the spirits and flatuosities, as *Rue*, according to *Aristotle*. The second defect proceeds from the obstruction of the Vessels, or from a Resolution or Palsie befalling the foresaid parts. That which is supernatural is acknowledg'd according to the Canon by the practise of the Church, which ordains the two parties to be unmarried, if at the end of three years they cannot undo this Gordian knot in the presence of seven witnesses. It is made by Sorceries and charms; which indeed have no action of themselves; yet when men make use of them, the Devil (according to a compact either tacite or express) acts with them imploying to that end the natural things whereof he hath perfect knowledge, and hinders generation in two manners; either by disturbing the phancie with some images and species of hatred and aversion; or else by suspending the generative faculty by the dissipation of



of flatuosities, retention of spirits, and concretion of the geniture. Now natural impotence is discern'd from supernatural, because the first is alwayes alike towards all sort of persons, but the second is onely in reference to some particular Woman, the Man being well enough dispos'd for all others. But change is to no purpose, when the impotence is natural.

The Fourth said, That Ligature is a subverting of the order establish'd in order, by which all things are destinated to some particular action, and are lead to what is futable for them. 'Tis an impediment whereby the actions of agents as it were repress'd and restrain'd, and 'tis either Physical or Magical. The former proceeds from a particular Antipathy between two Agents, the stronger whereof by some occult contrary property, extinguishes and mortifies the virtue of the weaker. Thus Garlick or a Diamond hinder the Loadstone from attracting Iron; Oyle keeps Amber from drawing straw, and the spirits of the Basilisk fix those of a Man. The second, of which kind is the tying of the Point, is done by Magick, which thereunto employes certain words, images, circles, characters, rings, sounds, numbers, ointments, philtres, charmes, imprecations, sacrifices, points, and other such diabolical inventions; but especially barbarous names without signification, yea, sometimes to that degree of impiety as to make use of sacred things, as the divine appellations, prayers, and verses taken out of the Holy Scripture, which it prophanes in its charmes and fascinations. Because, as Saint *Augustine* saith, the Devils cannot deceive Christians, and therefore cover their poyson with a little honey, to the end that the bitterness being disguis'd by the sweetness, it may be the more easily swallow'd, to their ruine. These Magical Ligatures, if we may credit those who treat of them, are almost infinite. For there are some particularly against Thieves, restraining them from carrying away any thing out of the house; others that hinder Merchants from buying or selling in certain Faires, and retain ships in the Port so that they cannot get out to sea either by wind or oars; or keep a mill from grinding, the fire from burning, the water from wetting, the Earth from producing fruits and upholding buildings, swords and all sorts of weapons, and even lightning it self from doing mischief, dogs from biting or barking, the most swift and savage beasts from stirring or committing hurt, and the blood of a wound from flowing. Yea, if we believe *Virgil*, there are some which draw down the Moon to the Earth, and effect other like wonders, by means, for the most part, ridiculous, or prophane. Which nevertheless, I conceive, are to be referr'd either to natural causes, or to the credulity of those who make use of them, or to the illusions of the Devil, or to the hidden pleasure of God, sometimes permitting such impostures to deceive our senses, for the punishing of the over-great curiosity of Men, and chastising of the wicked. For I see not what power of action there is in a number even or odd, a barbarous word pronounc'd lowdly



lowdly or softly, and in a certain order, a figure square or triangular, and such other things, which being onely quantities have not any virtue, power, or action; for these belong onely to Qualities.

The Fifth said, That we ought not to do as the vulgar do, who refer almost every thing to supernatural causes. If they behold a Tempest, or Lightning fall down upon any place, they cry the Devil is broke loose. As for effects which are attributed to Occult Properties, 'tis Sorcery, as they say, to doubt that the same are other then the works of Sorcerers. But we must rather imitate true Philosophers, who never recurr to Occult Properties but where reasons fail them; much less to supernatural causes, so long as they can find any in nature, how abstruse soever they may be. Those of this knot or impotence, are of three sorts. Some proceed from the want of due Temper, as from too great cold or heat, either of the whole constitution, or of the parts serving to generation. For a good Temperature being requisite to this action, which is the most perfect of any Animal, immoderate heat prejudices the same as much as cold, because it dries the Body, and instead of producing consumes the Spirits. The Second Cause is in the Mind; for the Body is of it self immoveable, unless it be agitated by the Soul which doth the same office to it that a Piper doth to his instrument, which speaks not a jot if he blow not into it. Now the Phancy may be carri'd away elsewhere, or prepossess'd with fear, or some other predominant passion: Whence, he that imagines himself impotent, and becomes so indeed; and the first fault serves for a preparatory to the second. Hereupon ariseth, first, displeasure, then despising of the Women, and so their common hatred augments the evil, and makes it last, till the conceit which produc'd it be cur'd by a contrary one. So *Amasis* King of *Egypt* being unsatisfactory to the fair *Laodice* his Wife, was restor'd in Nature by sacrifices offer'd to *Venus*. And he of whom *Galen* speaks, having his whole Body rub'd with Oyle of *Sesamum*, in which the gall of a Crow had been boyl'd, was cur'd of his impotence. And indeed those untyers of poynts make use of extravagant and uncouth things, affording the Mind more ground of admiration then ratiocination; As they advise the Man to make water through a wedding ring, to be smoak'd with the burnt Tooth of a dead Man, to pass over the threshold of a door, or to sleep upon a pillow under which is plac'd a quill or hazle stick fill'd with quicksilver, and steep'd with new wax, to eat a Bird call'd a Wood-pecker, to be unwarry'd and marry'd again to the same Woman; and other such trifles. Now every thing that can trouble the Phancy, can also bind it and make the Man impotent; as every thing that can content and rectifie it, may again unbind it; there being examples of many, who though ignorant of this wickedness have really bound it, because the Husband onely saw them use the same gestures as those do who intend it; as also of others who



without any skill have unbound it. But when a Man is rightly dispos'd in all his parts, and his Imagination not perverted, and yet he finds himself impotent; then, and in no other case, may we attribute the cause thereof to damnable Sorceries; which, as we must not alwayes credit, so neither can we sometimes question.

The Sixth said, That indeed the near commerce of the Mind with the Body causeth that the one communicates its passions to the other. The Cholerick is easie to be displeas'd; and he who is froward oftentimes acquires much Choler into his temper. Sadness increases the Melancholy Humour, and this again causeth sadness. The Patients good opinion of his Physician, and of the success of his malady, helps to cure him; as the fear of Death oftentimes brings it, and the apprehension of the Pestilence hath produc'd it. And in this case the indocility and the obedience of this Part (which seemes a Province disjoyn'd from the State, constituted by the three principal parts of the individual) is less to be wonder'd at then the repugnance of his other members; inasmuch as this concerns onely the species, and denyes its use to Man during one part of his Life, namely, from his birth to his puberty, and ordinarily in the latter years of his old age. But Fear hath oftentimes ty'd the Tongues of the ablest Men at such times as they have had most need of them. Yet this reason holds onely in such as are afraid of the tying of the point; and many are found impotent who distrust nothing less; and therefore all that can be said, is, that perhaps some other passions supply its room.

II. Upon the Second Point it was said, There is but one goodness absolutely such, namely, God. All other things are term'd *Which is the greatest Vice.* good by the participation and respect which they have to the divine goodness, or by the comparison made of one with another, and according to the different estates and professions of Men. Thus, amongst Divines, he is call'd a good Man who hath most Piety; amongst Merchants, he who hath most credit. But when a Captain bids his Souldiers behave themselves like *gens de bien*, good Men, his meaning is, that they defeat the Enemy, and not give ground. Even the lowest rank of actions have their kind of goodness. So we call him a good Man who leaves his Wife to do all. Since therefore Evil or Vice is nothing else but the privation of goodness and Virtue, the reason of either is the same, and the word *Great*, in the question, shews that 'tis onely comparison intended in it; nothing being great but in comparison of something less. Wherefore this question ought to be resolv'd severally in each profession, and according to the different estate of persons. Thus taking the word Vice largely for *Evil*, the greatest in Divinity is Atheisme; and the next, Heresie; the first rendring a Man a beast, the second making him shake off the yoke of the Church. The greatest Vice of a States-man is Imprudence;



Imprudence ; of a Souldier, Cowardice ; of a Friend, Treachery ; of a Physitian, playing the Mountebank or Cheat ; of a Lawyer or Procurator, Prevarication, and when he sells the Cause of his Country ; of a Judge, Injustice ; of a Merchant, false Weights and Measures ; of a Notary, Falsification or Forgery ; of a Labourer, purloining the Seed ; of a Father, forgetfulness of his Family ; of a Wife, Adultery ; of a Child, Disobedience ; of a Servant, Domestick Thieft.

The Second said, That the different inclination and judgement of Nations is solely of consideration herein. 'Twas no Vice at *Sparta* to be a subtle Thief, nor at present among those roamers who take upon them the name of *Egyptians* ; but amongst people of Honour, 'tis one of the most ignominious. And as for Drunkenness, the Northern Nations and we do not agree about it. Yet if Vices be consider'd in general, some one may be assign'd greater then all the rest in Humane Society. For of corporeal things which we call great, there are some which are so onely in comparisons of individual of the same species ; so the same size which denominates a Dog great, denominates a Horse small. But some are greater then all others, namely, the highest of the Heavens. So likewise there are some Vices greater, and some less, compar'd one with another ; as Theft with Sacrilege. But there is also some one greater then all others, which I conceive to be Pride, not onely in comparison of Humility, its contrary, the foundation of all Christian and Moral Virtues, but also because all Vices take their original from it. 'Tis that which caus'd the fall of Angels and the first Man, which hath caus'd and continu'd all the mischiefs which befall us. Yea, 'tis not onely the greatest, but also the most odious. As is prov'd, in that if you see a Prodigal, a Miser, a debauch'd person, a Thief, or a very Murtherer pass by, you are not mov'd to so much hatred against them, as against some proud fool ; who beholding others disdainfully, knows not in what posture to put himself.

Of those which spoke afterwards, One said that he distinguish'd Vice from Sin, and Malice, or Enormity. The first being an habitude to evil, the second the act thereof, and the third the deformity which follows them both. Another held Atheisme to be the greatest Vice. Others said, it was the sin against Nature. One assign'd Philautie, or the inordinate love of ones self, as being the impulsive cause of all other Vices, to Ingratitude, Covetousness and Idleness ; each maintaining the same to be the root of all other evils. Injustice was also instanc'd to comprehend all Vices, as Justice contains in it self all Virtues. For he who is proud, covetous, prodigal, or a Murtherer, would not be so if he were not unjust, whilst he attributes more to himself, and less to others, then is due. And for conclusion it was said, That as of the diseases of the Body, those are term'd the greatest which invade the most noble part, or have the most



dangerous symptoms; (as the prick of a pin in the heart is more mortal than the cutting off of an arm, and the same puncture is more perillous when Convulsions thereupon befall the whole body, than a wound with a sword in some fleshy part without any accidents;) so Ignorance and Imprudence are the greatest vices, because they possess the most noble Faculty of man, the Understanding, and produce all the rest.

At the hour of Inventions, a Proposition was reported to draw Smith's-coal out of the lands of this Kingdom, and in so doing to cut channels for the draining of Marshes, and making rivers Navigable, in order to the conveniency of transportation, facilitation of commerce, feeding of Cattel, and preservation of Forests. This Invention, besides the advantage it will bring to the meaner sort of people, in reference to their domestick fuel, is of much benefit for the making of Brick, Tile and Lime; as much of which may be made thereby in three days as is made in eight or nine with wood, which is the ordinary fashion. It will be a matter of great saving to the whole Kingdom, especially to the abovesaid Artists, who are here in great number, and are forc'd to buy such Coal from *England* at dear rates. The Proposer offer'd to continue the experience which he had made thereof, at his own charges, for satisfaction of the curious.

### CONFERENCE XXXVII.

I. *Of the Cabala.* II. *Whether the truth ought always to be spoken.*

I.  
*Of the Ca-  
bala.*

**T**Hat which hath hapned to many other words, as *Tyrant* and *Magician*, which at their first institution were taken in a good sense, but have abusively degenerated into odious significations, is found likewise in the word *Cabala*, which (according to its genuine importance) signifies nothing else but Tradition, and comes from the Verb *Cabal*, denoting with the Hebrews *to give or receive*. 'Tis a mystical doctrine concerning God and the creatures, which the Jews receiv'd by tradition from Father to Son. If we may give credit to them, it Began in *Adam*, who had a perfect knowledge not only of the whole nature and property of things corporeal; but also of the Divine nature, of the mysteries of Religion, and of the redemption of mankind, which his Angel *Raziel* assur'd him was to come to pass by means of a just man whose name should consist of four letters [which is the cause, say they, that most part of the Hebrew names are of four letters in their language, wherein the vowels are no letters] *Adam* taught these mysteries to his children;



children; they to their successors until *Abraham* and the Patriarchs. But, they say, *Moses* learn'd it anew from the mouth of God during the forty days that he was in the Mount, where he receiv'd two Laws, one written with the hand of God, compriz'd in the two Tables of stone; the other not written and more mysterious: the former for all in general, the latter for the learned and skill'd in mysteries of Religion: which is that which *Moses* taught the seventy Elders of the People, chosen by himself according to the counsel of *Jethro* his Father-in-law; and they transfer'd the same to the Prophets, Doctors of the Law, Scribes, Pharisees, Rabbines, and Cabalists.

The Second said, That in order to judge of the *Cabala*, 'tis requisite to know what the Philosophy of the Jews was; as the Stoicks, Peripateticks, Pyrrhonians, and other Philosophers, had their peculiar Sects. 'Tis divided commonly into that of things, and that of words or names. The first is call'd by the Rabbines *Bereschit*, the second *Mercana*. That which treats of things, by the Cabalists call'd *Sephiroch*, that is to say, numbers or knowledges (for with them, to number and to know are almost synonymous) is either Philosophical or Theological. The Philosophical comprehends their Logick, Physicks, Metaphysicks, and Astronomy. In Logick they treat of the ten lesser Sephiroth; which are so many steps or degrees for attaining to the knowledge of all things, by means of Sense, Knowledge, or Faith; and they are divided into three Regions. In the lowest, which is made by the sense, are (1) the Object, (2) the *Medium* or *Diaphanum*; (3) the External sense. In the second and middle region are, (4) the Internal or common Sense, (5) the Imagination or Phancie, (6) the Estimative Faculty or inferior Judgement. In the third and supream (7) the Superior and Humane Judgement. (8) Reason. (9) The Intellect; (10) and lastly, the Understanding or *Mens*; which performs the same office to the Soul that the Eye doth to the Body whom it enlightens. For example, when I hear a Cannon discharg'd, the sound comes to my ears by the *medium* of the air, then the Common Sense receiving this species of the sound transmits the same to the Imagination, and the Estimative Faculty judges thereof simply, as beasts would do; afterwards the Judgement apprehends the essence of the sound, Reason searches the causes thereof, and the Intellect considers them; but lastly, the Understanding or *Mens*, call'd by the Cabalists *Ceter*, that is, a Crown (by way of excellence) receiving light from on high irradiates the Intellect, and this all the other Faculties. And these are the degrees of Cabalistical knowledge. In the other parts of their Philosophy they treat of the fifty gates of light. Whereof the 1. is the Divine Essence, the Symbol of which is the Tetragrammaton and ineffable name of God; The 2. gate is the Archetypal World; the knowledge of which two gates, they say, was hid even to *Moses*. The 3. is the Earth; 4. Matter; 5. *Va-*

*cuum*



um or Privation; 6. The Abyſſe; 7. The Fire; 8. The Air; 9. The Water; 10. The Light; 11. The Day; 12. Accidents; 13. The Night; 14. The Evening; 15. The Morning. And after many other things they conſtitute Man for the 50th gate. To arrive to the knowledge of theſe 50 gates, they have invented 32 Flambeaux or Torches to guide them into the ſecrets contained therein, which they call the paths of Wiſdom, namely the Intelligence miraculous or occult, Intelligence ſanctifying, reſplendent, pure, diſpoſitive, eternal, corporeal, &c. The Theological Cabala treats of God and Angels. Of God, by expounding the names of 12 and 42 letters, yea they attribute ſeven hundred ſeveral ones to him; and particularly the ten Divine Attributes, which they term the grand Sephiroth, namely, Infinity, Wiſdom, Intelligence, Clemency or Goodneſs, Severity, Ornament, Triumph, Confefſion of praiſe, Foundation and Royalty, whereby God governs all things by weight, number, and meaſure. Of Angels, namely of the 32 aboveſaid Intelligences, call'd by them the paths of wiſdom (for they make them ſo many Angels) and of ſeventy two other Angels; the names they compoſe of the 19, 20, and 21. Verſes of the 14. Chapter of *Exodus*, in each of which there being 72 letters, they form the name of the firſt Angel out of the three firſt letters of each Verſe; the name of the ſecond, out of the three ſecond letters of the ſame Verſes; and ſo the reſt, adding at the end of every word the names of God, *Jah* or *El*, the former whereof denotes God as he exiſts, and the latter ſignifies Mighty or Strong God. The Cabala which treats of words and names is nothing elſe but the practice of Grammar, Arithmetick and Geometry. They divide it into three kinds. The firſt whereof is called *Notarickon*, when of ſeveral firſt or laſt letters of ſome word is fram'd a ſingle one; as in our Acroſticks. The ſecond, *Gématrië*, when the letters of one name answer to the letters of another by Arithmetical proportion; (the Hebrews as well as the Greeks making uſe of their letters to number withall.) Whence ſome Moderns have affirm'd that Chriſtianity will laſt ſeven thouſand years, becauſe the letters of *χρῑςτιανος* are of the ſame value in number with thoſe of *ἐπταχιςχιλῑοις*. The third is call'd *Themurath*, which is a tranſpoſition of letters, like that of our Anagrams, the moſt common way of which is to change the laſt letter of the Alphabet into the firſt; and on the contrary; to which kind are referr'd the words and verſes which are read backwards, ſuch as this:

opus  
l

I. *Deus elati mutatum Itale ſuedi.*

l  
ſupo

Thus,



Thus, they prove by the first word of *Geneses*, which is *Bereſchit*, that the world was created in Autumn, because in this word is found that of *Bethſri*, which ſignifies Autumn. And that the Law ought be kept in the heart, because the first letter of the Law is *Beth*, and the last *Lamed*, which two letters being put together, and read after their mode, which is backwards, make *Leb*, which ſignifies the heart.

The Third ſaid, If the word *Cabala* be taken for a tradition, that is to ſay, the manner in which the Jews made their ſacrifices and prayers according to the inſtruction which they had from Father to Son concerning the ſame, it deſerves to be eſteem'd for its antiquity, although it be abolish'd. And the more in regard of the Hieroglyphical and myſterious names of God and Angels which it contains; and whereof whoſoever ſhould have a perfect and intire knowledge would find nothing impoſſible. 'Twas by this means, ſay they, that *Moses* divided the waters of the Red Sea, and did ſo many other miracles, because he had written at the end of his Rod the name of *Jehovah*. For if it be true that black Magick can do wonders by the help of malignant ſpirits, why not the *Cabala*, with more reaſon, by means of the names of God, and the Angels of light, with whom the Cabalists render themſelves friends and families? Our Lord ſeems to confirm the ſame, when he commands his Apoſtles to make uſe of his name for caſting Devils out of the poſſeſſed, and to heal diſeaſes, as they did, and the Church hath done, after them, to this day. The victory of *Judas Maccabeus* againſt the enemies of his Religion, hapning by means of a ſign of four letters; that of *Antiochus* over the *Galatæ*, by a Pentagone; that of *Conſtantine* the great, by the ſign of the Croſs; and the *Thau* where-with the Scripture arms the foreheads of the faithful, demonſtrate that figures are not wholly inefficacious. The Critical days of Diſeaſes, and the practice of Phyſitians, who adminiſter their Pills in odd number, which the Pythagoreans call the masculine number, ſhew likewiſe that all kind of vertue cannot be deny'd to number, and conſequently that the *Cabala* is not to be blam'd for making account of numbers, names and figures, the knowledge whereof would undoubtedly be moſt excellent did it not ſurpaſs the reach of humane capacity, which cannot comprehend the connexion which there is between the name and the thing which it denotes, the number and the thing numbred, and figure and the thing figured. For ſince the external figure of a man or other animal gives me to know his ſubſtance which I ſee not, and the ſpecies of this figure entring into my ſenſes ſuffices to make me conceive the thing without its ſtirring out of its place; why ſhall not the names, and particularly thoſe impos'd on things by our firſt Parent in the Hebrew language, have as neceſſary a ſignification and connexion with things as the other accidents which are the objects of our ſenſes? And why ſhall we not believe the ſame of the letters which repreſent thoſe names in the ſame language?

The



The Fourth said, That the *Cabala* was either Allegorical or Literal. The former was more conjectural ; but if there be any vertue in characters which signifie nothing, with more reason the words, syllables and letters, which are the visible names of things, shall not be without. This gave ground to the Cabalists to consider in letters not only their number and Arithmetical value ; but also their order, proportion, harmony, magnitudes and Geometrical figures, observing whether they be straight, crooked or tortuous, closed or not ; thus in one passage where the Messiah is spoken of, some have concluded from a *Mem* which is found closed in the middle of a word, contrary to custom, that this Messiah should come out of the closed womb of a Virgin, contrary to the course of the ordinary birth of men. Thus, *Rabbi Haccadosch*, in the first letters of these three Hebrew words of *Genesis* 49. v. 10. *Jebo Scilo Velo*, found those where-with the Hebrews write the name of our Saviour, namely *JSV*.

The Fifth said, That we ought to govern our selves in the reading of the Cabalists, as Bees do, who gather only the good and leave the bad, which is more plentiful ; and above all avoid the loss of time which is employ'd in turning over the tedious volumns of the Thalmudists, which are either so unpleasant, or their sence so much unknown to us through the envy which they bore to their successors, that we may with more reason tear their Books in pieces then a Father did the Satyrs of *Perseus*, saying that since he would not be understood by the surface and out-side, like other Writers, he would look within, whether he were more intelligible.

II.  
Whether  
Truth is al-  
ways to be  
spoken.

Upon the second Point it was said ; Truth and Justice being reciprocal, and the former, according to *Aristotle*, a moral Duty, it much imports the interest of Government that it be observ'd and kept inviolably, not only in contracts and publick actions, but also in private discourses ; and 'tis a kind of sacrilege to go about to hide it. Moreover, 'tis one of the greatest affronts that can be put upon a man of honour, to give him the lye. For as 'tis the property of an ingenuous man to avow the Truth freely, and not to dissemble ; so Lying is the sign and consequent of a servile spirit. Hence the Persians were not contented to cause the children of their Kings to be instructed above all things, always to speak the truth ; but they erected Temples and Altars to this Vertue as to a Deity, and ador'd it under the name of *Oromagdes*, which signifies the God of Truth. And therefore 'tis my judgement that truth ought always to be spoken although it be to one's own damage.

The Second said, If it be necessary always to speak truth, and that it be the conformity of our words with our thoughts, mine is, that it is not always to be spoken. ¶ This Nature teaches us, whilst she discovers to us only the surface of the earth, but hath hid all the treasures of it, as all the parts of  
man,



man, especially the more noble are conceal'd under the skin. That which vilifies mysteries is the publishing of them, call'd Prophanation. That which hinders the effect of State-Counsels, whereof secrecy is the soul, is the letting of them be discover'd, which is Treason. That which takes away the credit from all arts and professions, is the rendring them common. And Physick (amongst others) knows the advantage of concealment, whilst the welfare of the Patient many times depends upon his ignorance. Would you see what difference there is between a wise man and a fool, a Civil Man and a Clown? it do's not consist in knowledge; for they oftentimes have the same thoughts and inclinations; but the Fool speaks all that he thinks, the Wise man doth not; as the Clown will declare by Gesture and (if he can) do every thing that comes into his phancie, but the better bred man uses restraint upon himself. The Comœdian therefore wanted not reason, to say that Truth begets Hatred; and the Scripture teaches us that God built houses for the wise Egyptian women who ly'd to *Pharaoh*, when they were commanded to murder the Hebrew children at the birth, but obey'd not. For though some hold that God pardon'd them the lye in regard of the good office which they render'd to his Church; and that 'twas for this good office that God dealt well with them; yet, leaving this subtilty to the Schoolmen, 'tis evident that their dissimulation was approv'd in this case.

The Third said, There's great difference between Lying and not speaking all the truth which is expected from us; the former being vicious, the other not; whence *S. Athanasius* being ask'd by the Arrians who pursu'd him, whether he had seen *Athanasius*, told them that he went that way a little while since, but did not tell them that himself was the person. And *S. Francis* being ask'd whether he did not see a robber pass by, shew'd his sleeve, and said, that he did not pass that way.

The Fourth said, As only weak and distemper'd eyes are unable to bear the light of the Sun, so none but weak and sickly minds cannot suffer the lustre of truth. All men are oblig'd to speak it, but particularly that which is dictated from God's mouth; and we ought rather to choose Martyrdom then renounce the belief of it. Less ought they to conceal it who are bound to it by their condition, as Preachers and Witnesses; provided they have regard to place, time, and persons. Without which circumstances 'tis as unacceptable and absur'd as to carry a Queen to an Ale-house. Yet in two cases particularly the telling of truth may be dispens'd with, I. when the safety of the Prince or good of the State is concern'd, for which, *Plato* in his Commonwealth saith, it is lawful to lye sometimes; and the Angel *Raphael* told *Tobias* that 'tis good to hide the secrets of Kings. II. When our own life is concern'd, or that of our Father, Mother, and Kindred, against whom, although we



certainly know them guilty of a Crime, we are not oblig'd to declare it ; provided, nevertheless, that it be with the respect due to the Magistrate, and that we beware of speaking lyes whilst we intend onely to decline discovery of the Truth. 'Tis the opinion of the Civilians, and amongst others, of *Paulus*, in *l. 9. ff. de Test.* that a Father cannot be constrain'd to bear witness against his Son, nor a Son against his Father, except in the case of High Treason.

The Fifth said, That these three things must not be confounded, To lye, To speak or tell a lye, and to do or act one. To lye is to go against our own meaning ; as when I know a thing, and not onely conceal it, but speak the contrary. This action, according to some, is alwayes evil, inasmuch (say they) as 'tis never lawful to do evil that good may come of it. According to others, 'tis qualifi'd according to the diversity of its end. For he who tells a lye to save a Traveller's life who is pursu'd by Thieves, seemes to do better then if he expos'd him to their Cruelty by his discovery. The Physitian who dissembles to his Patient the danger of his disease, and thinks it enough to acquaint his domesticks therewith, do's better then if he cast him into despair by a down-right dismal prognostication ; and when he chears him up in fitting time and place by some pleasant made Story, what he speaks can scarce be reckon'd amongst idle words. But he who lyes for his Profit, as most Trades-men do, sins proportionably to the deceit which he thereby causes ; but he is most culpable who lyes to the Magistrate. One may tell or speak a lye without lying, namely, when one speaks a false thing conceiving it to be true. To do or speak a lye, is to lead a life contrary to ones profession ; as he who preaches well and lives ill. Whence I conclude, that many precautions are requisite to lye without committing an offence, that a lye is to be spoken as little as possible, and never to be done or acted at all.

## CONFERENCE XXXVIII.

I. *Of the Period, called Fits of Fevers.*

II. *Of Friendship.*

I.  
*Of the Fits  
of Agues.*

A Fever is a Heat contrary to Nature kindled in the Heart, and from thence sent by the Arteries and Veins into the whole Body, with a manifest lassion or disturbance of the action. It is so inseparable from the Heart in case of any injury, that being we cannot dye without the Heart be mis-affected ; therefore many have thought that we cannot dye without a Fever, though 'twere of a violent death. And for that there are three subjects



Subjects which receive this Heat, viz. the *Parts*, the *Humours*, and the *Spirits*; thence ariseth the distinction of Fevers into three kinds, the *Hectick*, the *Humoral*, and the *Ephéméra*, or One-day Fever. The first is in the solid parts, and is call'd *Hectick* or *Habitual*, because it resides in the whole habit of the Body, and is of very long continuance, yea, ordinarily lasts till Death. The second, call'd *Humoral*, is, when the Humours are inflam'd, either through a bare excess of Heat without other alteration in their substance, or with corruption and putrefaction, which happens most frequently. The third kind is when only the Spirits are inflam'd, and 'tis call'd *Ephéméra*, because it continues but one day; unless the Humours too become of the party, as it falls out usually; and it admits of three differences, according to the three sorts of Spirits, Animal, Vital, and Natural. The Humoral Fever is either *Simple* or *Compound*. The Simple is either *Continual* or *Intermitting*. The Continual is caus'd when the putrefaction of the *Blood* possesses the great Vessels, or some noble Part. The Intermitting, produc'd by the three other Humours putrefying out of the Veins, is either *Quotidian*, which is produc'd by Phlegme; or *Tertian*, by Choler; or *Quartane*, by Melancholy. The Compound (or complex) Humoral Fever is caus'd by the mixture of those Humours, which then cause a double Quotidian, double Tertian, and double Quartane, yea, sometimes, but very rarely, a Quintane, and others of longer interval; which may be attributed to all the different from which Fevers arise. The *Efficient*, causes is, in my opinion, the strength of Nature, and every one's particular Temper; as he who is more robust, and upon whom the disease is more violent, will have longer Fits, (the Fight of Nature with the Malady being more stoutly maintain'd by the parties) and consequently shorter intervals, because that which increases to the one decreases to the other. The Cholerick will have longer Fits of a Tertian Fever, and shorter of a Quotidiane. The *Material* Cause contributes very much herein, being that which supplies Ammunition to this intestine War, which is continu'd or discontinu'd according to the proportion and quantity of the Matter. 'Tis more easie to name the *Formal* Cause then to understand it. But as for the *Final*, 'tis certain that Nature makes the intervals of Fevers purposely to rally and recruit her strength; as truces and cessations of Arms use to be made when the Country is almost spent, or the Souldiers too much harra's'd and out of heart.

The Second said, That the Periods of Fevers have been matter of torture to the best wits, who could not without admiration consider, how, (e.g.) one sick of a Quartan, and appearing to day at the point of Death, should nevertheless for two days together perform all his actions perfectly; and then upon the fourth, many times too at the same hour (in more contumacious Fevers) become in the like pitiful condition again. Now the



Cause hereof is commoly attributed to the time which is requir'd for producing the matter of the Fever, and consuming it. They hold that it is so long in consuming as the Fit lasts, the end whereof is the Crisis; like as the ancient water-clocks of the *Romans* did not signifie nor strike the hour till the vessel was full. Some have imputed the cause to the motion of the Humour, and believ'd that as the humid mass of the Sea hath its flux, reflux, and interval, so have the Humours of our Bodies, when the natural heat which regulated them, being disorder'd, and its effect suspended by the disease, governes the same no longer; but abandons them to their own Capricio. Of which motion 'tis no easier to render a reason then of that of the Sea, the Load-stone, and all other occult motions. Hence many have recurr'd to the Asylum of Last Differences, the knowledge whereof is interdicted to Humane Capacity. And therefore they have ventur'd to assign no other cause, saving that the Interval of these Fevers being their most proper Difference, it must not be wonder'd if we understand their nature as little as those of all other things in the world.

The Third said, That the time which is requisite for generating the Humour cannot be the cause of these Intervals, since the Fits of a Fever are longer or shorter, though the Fever change not its Nature; yea, it will become double or trebble sometimes, and still keep the name of a Quartan. As, on the contrary, when there is so little matter left for it that it is almost quite gone, yet it alwayes returns on the fourth day, although the Fit lasts a shorter time. Yea, it comes to pass oftentimes, that he who hath had a Quartan, and is cur'd of all other Symptomes of his Ague, yet for a long time after feels the chilness and weariness at the same day and hour that his Disease was wont to seize upon him: In the mean time while 'tis manifest that the Fever being gone, the Melancholy Humour is no longer gather'd together in sufficient quantity to produce it; and therefore the cause cannot be attributed to the Melancholly Humour, since it no longer causeth the fever. Whereby we may judge that the quantity of the matter contributes to the lengthening or diminishing of the fit, but gives not the fever its name or form. Now as for the motion which they attribute to the Humour, like that of the Sea, and their calling this Interval the form of the Fever, 'tis a confession of their Ignorance, but not a solution of the Question. *Galen*, in the second Book of the Differences of Fevers, and the last Chapter, refers the cause of these regular and periodical motions to the dispositions of the parts of the whole Body, which being distemper'd cease not to transmit or receive, generate or attract superfluous and excrementitious humours; and he holds that so long as the cause of these dispositions lasts, so long the circuits continue; and consequently, the reason why a Tertian which is caus'd by Choler returns every third day, is, because the distemper'd parts transmit, or receive, or generate bilious humours and excrements



crements every other day. But the question remains still, whence it is, that these parts are affected in such manner that they cause such just and regular periods? For though it be true that the parts, by reason of pain or heat, (*e.g.*) yellow putrid Choler; nevertheless this doth not infer that they attract the same rather the third day than the fourth or every day, as they ought to do; since the cause being alwayes present, *viz.* the pain or heat which incessantly attracts this humour, the effect should alwayes follow and make a Quotidian circuit; although indeed 'tis but, once in three dayes.

The Fourth said, That as Physitians refer the unusual motions of Epileptical, and the violent sallies of the Frantick, not barely to the phlegmatick or atrabilarious humour, but to a certain quality of it; so ought we to do touching the periodical motions of Fevers, which proceed not simply from the humours corrupted, but from a particular condition and virtue of each humour, whereby it is that putrifying Phlegme makes its approaches every day, Choler every third, and Melancholy every fourth day. And as these humours, so long as they retain their natural constitution, have a regular motion which carries one into the Bladder of Gall and the Guts, the other into the Spleen, and the other into the Stomack; so being corrupted, each acquires a certain new quality and putrefaction, which is the cause of other periodical motions, namely, those of Fevers.

The Fifth said, That as health is a Symmetrie and fit proportion of all the humours while they continue in society one with another; so a Fever is a discomposure thereof when some one comes to infringe the obedience which it owes to the laws of the Compositum, and to usurp a Tyranny over the rest. In which case, they do as States who apprehend their own ruine by the too great increase of a potent neighbour; they unite against it, and go to assail it all together. Upon this shock, the natural heat retires to the Heart which is the centre of the Body, as if it call'd its Councel; hence proceeds the cold fit of the Fever, during which the extreme parts, destitute of their ordinary heat, fall into trembling, shivering, and chattering; as it comes to pass upon the Earth, when the Sun is very remote from it: But Nature at length getting the mastery, is not contented to return the Blood to the parts who were depriv'd thereof, in the same condition that they lent it to her; she drives it into them with a new heat acquir'd by the vicinity of the Heart, which is the source thereof, and augmented by the reciprocation of its motion. But as no violent thing is of long continuance, this heated Blood causing its sharpest serosities to pass through the skin by sweat, becomes asswaged, and (as water remov'd from off the fire ceases to boyle) it no longer extends the Veins, nor stimulates the Arteries, whether this Crisis perfectly terminates the disease, as in Continual Fevers, or the Fit onely, as in Intermitting; which leaving a leven of the Fever, how little soever, in the humours  
and



and an empyreuma or combustion in the parts, the best Aliments, yea, the most laudable humours, if any such remain in the Body, are as easily turn'd into the matter of the Fever, as the best Wine is spoyl'd when it is pour'd upon a corrupted lee in a musty vessel. And 'tis not so much to be wonder'd that this corruption is made regularly in the time of half a day in Quotidians, of one day in Tertians, and of two in Quartans, as that the Periods of Fevers are sometimes irregular, as is seen in Erratical Fevers; considering that all generations and corruptions are reciprocal and have their limited time. Thus 'tis a less wonder that Women are ordinarily deliver'd of Children likely to live, in the ninth and seventh moneths, then if they were deliver'd so in all the other moneths indifferently; which hath place in all other motions of Nature, who doth every thing according to number, weight, and measure.

II.  
Of Friend-  
ship.

Upon the Second Point the First said, Friendship is a powerfull and streight Union which conjoynes the lover and the loved party together, making one whole of these two parts; like that bond which in Nature unites the Matter and the Form, the Accident and the Substance. The cause of it is Goodness, which being proportionate to the Body, produceth a natural Amity; to the Passions, an Animal Amity; to the Understanding, a Rational one; to the Laws, a Political or Civil; to Religion, a Divine one. This Goodness consisting in a Proportion and Symmetry is not different from Beauty; and therefore we apprehend Beauty in good things, and goodness and convenience in such as are handsome and gracefull.

The Second said, besides goodness which is the cause of Friendship, and towards which our will is as necessarily carry'd as the Intellect is towards Truth, and all the Senses towards their proper objects; Resemblance and Friendship it self are the causes of Friendship. The first is founded upon the Love which we bear to our selves. For as we love our selves above any thing else in this world, so we love those who resemble us, and symbolize with our humours and inclinations. Hence it is that one of the most common courses to please, is, to conform our selves to those by whom we desire to be affected; we never contradict their Judgement, we have no other Will but theirs, we frame our selves to their gestures and actions, without excepting those which are imperfect. Then Friendship, the second means of acquiring Love, is no less effectual; it being almost impossible not to love them who love us. Whence the Ancients feign'd Love to be the most ancient of all the gods, intimating that Love hath no other Principle or Origine but Love it self. And they who assign'd him a Companion which they styl'd *Anteros*, signifi'd thereby, that Friendship cannot last unless it be mutual.

The Third said, That Friendship must be distinguish'd from Love. For Love is a Passion of the Concupiscible Appetite, arising



arising from the imagination of a sensible good, and is found even in brute beasts. But friendship is one of the most excellent virtues, or rather the fruit of accomplish'd and perfect virtue; 'tis indeed very rare, because it hath place only amongst excellent persons (who are very few) uniting and making them conspire together in the exercises of virtue. But being once establish'd, it is very durable, inasmuch as its cause and foundation, Virtue, always remains, and may be exercis'd. Therefore *Seneca* pronounces, that the friendship which knows an end was never true. Some friendships there are (indeed the most) whose foundation is Profit and Pleasure, but they are always imperfect. Whence it is that old men and young men are ordinarily accounted incapable of true friendship; the former, because they scarce regard any thing besides Profit; and the latter, because their minds are more set upon what is pleasant and agreeable than upon what is honest or virtuous. Nor is it ever found amongst wicked persons. For 1. a perfect friend must love another as much as himself. And although the affection we bear to our selves be not true friendship, because this must always have reference to another, yet it is the most certain, yea the measure of perfect friendship, and God hath appointed it as the rule of our love to our Neighbour. Now how can he be a perfect friend who doth not love himself? How can he agree with another who accords not with himself? and how will he do good to another, who doth none to himself? for a vicious man is his own chiefest enemy, whilst he pursues the false and imaginary good in stead of the true; vice, instead of virtue; the shadow, for the body; and many times he becomes his own murderer by intemperance and other vices. He hath always a civil war within himself; his Reason is never at peace with his Appetite; what one desires, the other rejects. Consequently, he hath never any inward joy, but he is greatly displeas'd with being alone, and for that reason always seeks the company of those like himself, to divert his sad thoughts.

The Fourth said, There is nothing comparable to Friendship, which is the salt and seasoning of humane life, the preserver of societies, and the most agreeable and sweetest consolation that persons of virtue and honour can have; by help of which a man finds another self, to whom he may entrust his most secret thoughts. This consideration mov'd *Archytas* the Tarentine to say, That he who should ascend into the Heavens and attentively survey the beauty of the Stars and all the Celestial Orbes, would have no pleasure if he found no person to whom to recount those wonders, and communicate his felicity. 'Tis therefore one of the greatest contentments to have a friend, whom you may make partaker of your felicity, which is so much the greater when it is communicated to others without being diminish'd to your self; and in case adversity befall you, the same is sweetned by the relation you make thereof to him who shares

this



this burden with you, and so renders it more supportable. True it is, that although a friend be necessary in either fortune, yet he is of more advantage to us in adversity; in which a friend supplies his friend with help and counsel, and is thereby distinguish'd from a false one, who loves only for the sake of his own pleasure and profit. Now whatever is excellent hath most of Unity. And as a River divided into several streams is more weak; so friendship shared amongst many is always languid and impotent. Besides, a friend should be complacent to his friend in every thing, and they ought to be but one soul living in two bodies. Now 'tis as hard to please many, as 'tis impossible to please all the world. And should two friends at the same time implore the succour of a third, he could not betake himself to both together, nor consequently satisfy the duty of friendship.

The Fifth said, That Friendship is either Natural, Spiritual, or Moral. The Natural is between Father and Children, Brethren and Sisters, Husband and Wife, and between Kindred or Alliance. The Spiritual is between those who profess the same Law and Religion, such as is that of Christians and Monasticks. The Moral is between such as are united together upon the account of Vertue; such was that of *Theseus* and *Pirithous*, *Orestes* and *Pylades*, *Damon* and *Pythias*, *Aeneas* and *Achates*, *Achilles* and *Patroclus*, *Jonathan* and *David*, and so few others, that many have conceiv'd perfect Friendship but an Idea, a mark to be aim'd at, but never hit; much like the description of a perfect Orator. It consists only in the union of Wills, not of Understandings; for I may have an opinion different from that of my friend without prejudicing our friendship, but not a different Will. And as honesty doth not take away piety, nor piety honesty; so spiritual and moral friendship do not destroy one the other. For I may love one morally whom I love not spiritually; that is, I may conspire with him in the exercises of honesty or vertue, though I differ in those of piety.

### CONFERENCE XXXIX.

I. *Why all men naturally desire knowledge.* II. *Whether Permutation or Exchange be more commodious than Buying and Selling.*

I.  
*Why all men  
naturally de-  
sire know-  
ledge.*

**A** *Aristotle* rightly teacheth that the first Question ought to be whether the thing be or exist; because 'tis in vain to seek the causes of that which hath no being. 'Tis therefore first to be inquir'd, whether it be true that all men have a natural desire of knowing; and then the causes thereof must be sought. That which



which is natural must be found in all ; so we say 'tis natural to a stone to tend downwards, because all of them do so. But 'tis so far from being true that all men are desirous to know and learn, that for rectifying the defect of such desire we see Teachers sometimes arm'd with the rod, sometimes forc'd to use allurements and rewards, and employ all artifices they can devise to excite a desire of learning in such as want it, the number of whom is always greater then of others. Hence it is that in a School of five hundred Scholars you shall scarce find fifty that have well profited in learning ; and amongst a hundred Masters of a Trade, scarce ten good workmen. Moreover, there are some men who have not much less of the beast then of the man. And as the greatest Clerks (according to the Proverb) are not always the wisest men, so neither are they the most happy. The best and most knowing Philosophers are not the men that do their business best now-adays. 'Twill be said, that to understand the means of advancing one's self is a sort of knowledge, and they who have not a genius for learning have one for other things, and profit therein as well as in the Sciences. But I answer, that Philosophy being the key of all other Disciplines, 'tis a sign that they will not open the chest, when they refuse the key of it. Besides, we see some persons so stupid, that they interpret the curiosity of knowing a trouble to themselves, and a vice in others : and not only some Philosophers have disclaim'd to know any thing except that they knew nothing ; but there have been found many holy personages who made profession of ignorance.

The Second said, All naturally desire to know, but not all things, nor at all times, nor by all the ways that are prescrib'd them ; every one would learn after his own mode, and things proportional to his reach : and as when these conditions meet together, they excite the desire ; so when any one is wanting, they cause disgust. Thus one is passionately affected to *Algebra*, which deterr's the wit of another : One matter may please at the beginning, and become distastful into the continuance ; and the same subject being treated in familiar discourse will render you attentive, yet displeases you in a more lofty style, which, on the other side, would content some other ; wherefore 'tis not to be wonder'd if some minds have reluctancy against the constraint which is offer'd to be laid upon them ; as the stomach rises when a food which it loathes is tender'd to it, though the appetite of knowing be, in the mean time, no less natural to the soul then that of eating is to the body.

The Third said, That supposing this desire of knowledge not general, it is demanded whence it comes to pass that it is so great in many persons, that some have relinquish'd all their fortunes for it, others have spent their whole age in attaining it, others have put out their own eyes the better to attend it, and some lost their lives for it. It seems to me that all of them do

Hh

thus



thus for some good. Now good is divided into its three kinds; and correspondently, some do it for profit, fitting themselves to gain themselves a livelihood; others for honour, and to enjoy the prerogatives which knowledge procures to the most learned; others again do it, only for the pleasure which they find in study, and not for the sake of knowledge it self: for when we once have attain'd the knowledge of a thing, it affords us delight no longer; whence it is that excellent workmen are always poor; because so soon as they have arriv'd to a perfection of skill they leave all further search to others; their only pleasure was in the acquisition. This pleasure herein resembling all other sorts, which consist only in action, and not in acquiescence or satisfaction. But may not it also be thus, because our soul being a Number always desires and aims to perfectionate it self? And as no number can be assign'd so great but that some others may be added to it, even to infinity; so our soul is capable of receiving new light and new notions, to infinity? Or else, as every thing tends to its natural place, so our soul being of celestial original aspire to the infinite knowledge of God by that of finite things.

The Fourth said, That the reason why both young and old desire to know, is, because of the extream pleasure which they take in knowing things. But if some be not inclin'd thereunto, 'tis in regard of the difficulties, which abate indeed, but cannot wholly extinguish their natural ardour. This pleasure is apparent, in that we take delight to know not only true things, but such as we are conscious to be notoriously false; yea sometimes we are more delighted with the latter then the former provided they have some pretty conceits, as with Stories, Fables and Romances. For there is nothing so small and inconsiderable in nature, wherein the mind finds not incomparable divertisement and delight. The Gods, saith *Aristotle*, are as well in the least insects as in the most bulky animals; and to despise little things is, in his judgement, to do like children. For, on the contrary, as in Art, the less place a Picture takes up, the more it is esteem'd; and the *Iliads* of *Homer* were sometimes the more admir'd for that they were compriz'd in a Nut-shell: so in Nature, the less voluminous things are in, the more worthy they are of admiration. Now if there be so much pleasure in seeing the figures and representations of natural things, because we observe the work-man's industry in them; there is much more contentment in clearly beholding those things themselves, and remarking in their essence, proprieties and vertues, the power and wisdom of Nature far transcending that of Art. But if the knowledge of natural things affords us such great delight, that of supernatural ravishes us in a higher measure; and 'tis also much more difficult, because they are remote from our senses, which are the ordinary conveyances of knowledge: Wherefore there being pleasure in knowing both great things and small,  
natural



natural and supernatural; 'tis no wonder if man, who usually follows delectable Good, takes delight in knowing.

The Fifth said, The Philosopher in the beginning of his Metaphysics proves this Proposition, 1. By Induction, from the senses, which are respectively delighted in their operations; whence we love the sense of Seeing above all the rest, because it supplies us with more knowledge than any one of the rest. 2. Because Man being mindful of the place of his original, desires to raise himself above Plants and the other Animals. By Sense he advances himself above Plants; by Memory above certain Animals who have none; by Experience above them all; but by the use of Reason, from which proceedeth Science, Men excel one another. For there are Animals which have some shadow of Prudence, but not any hath Science. And, as *Seneca* saith, men are all equal in their beginning and their end, that is, as to life and death, not differing but in their interval, whereof Science is the fairest Ornament. The cause of this desire of knowing proceeds then from the natural inclination which every thing hath to follow its own good. Now the good of Man, as Man, is to know. For as a thing exists not but so far forth as it acts, the Rational Soul (the better part of us) cannot be term'd such, saving inasmuch as it knows; yea Action being the measure not only of *being*, but also of the perfection of *being* (whence God, who is most perfect, never ceases to act; and the First Matter which is the most imperfect of all entities, acts either little or nothing at all) therefore the Reasonable Soul being the most noble and perfect of all formes, desires to act and employ it self incessantly in its action, which is the knowledge of things. Indeed every thing strives after its own operation. As soon as the Plant is issu'd out of the earth it thrusts forward till it be come to its just bigness. The Eye cannot without pain be hindred from seeing; Silence causes sadness. And as we see the Boar and the Bull, by an admirable instinct of Nature, the one oppose its forehead, the other its mouth, against such as provoke them, though the former as yet wanteth teeth, and the latter horns; so the reason and desire of knowing appears very early in children, even before they are capable of much.

The Sixth said, That the Intellect becometh each thing which it understands. Hence Man, the most inconstant of all creatures, is carri'd so ardently to the knowledge of all things, which finding not worthy of him he relinquishes, till he be arriv'd at the knowledge of his Creator, to whom conforming himself he desires to know nothing more, but acquiesces, contemplating in him, as in a mirror, all other things of the World.

The Seventh said, All things were made for the use and behoof of man, and therefore he has reason to desire to know every thing, to the end he may make use of it.

The Eighth said, We have the seeds and treasures of Knowledge



ledge hidden in our selves; which longing to be exerted and reduc'd from power into act, incessantly sollicite us to put them forth. Hence comes the desire of knowing, or rather awakning these species which are perfected in us by use, and in time wholly display'd. In which respect Teachers are with good reason compar'd to Mid-wives who do not produce the Infant in the Mother's womb, but lend a helping hand to its coming forth. For Teachers do not infuse knowledge into the children whom they instruct, but only assist them to produce it out of folds and recesses of the mind, in which otherwise it would remain unprofitable, and like matter without form; as the Steel doth not give fire to the Flint, but elicits the same of it. So those natural lights and notices being at first envelop'd with clouds, when their veil is taken away, and they are loosned, as the Platonists speak, from the contagion of the senses, they extreamly delight those who bore them inclosed in their breast, and needed help to exclude them.

II.  
Whether exchange be more convenient then buying and selling.

Upon the second Point it was said, As Unity is the beginning of Numbers in Arithmetick, and of causes in nature; so community of goods was no doubt at first amongst men. But because 'tis the occasion of negligence, and cannot continue long, in regard some are better husbands, more easie to be contented, and need less then others; hence arose the words of *Mine* and *Thine*, which are more efficacious then *Ours* and *Yours*; since even Monasticks take it for a mortification, and children cry when any thing proper to them is taken from them. In old time, when one had eaten or spent what was his own he repair'd to his neighbour for more, accommodating him with some other thing whereof he stood in need, by way of exchange, the respective value of the things being limited according to their estimation of their goodness and scarcity, in the first place, and then of their beauty or comeliness. And because Oxen and Sheep afforded them the most commodities, as their skins for clothing, and their milk and flesh for food, besides other uses to which they were serviceable, they made all their traffick with Cattle, in which all their wealth consisted. But because 'twas too troublesome a thing for a man to drive always a flock of Sheep before him, or lead a Cow by the horn, for making of payment; the industry of men increasing, they cast their eyes upon that which was in the next degree of most use to them, and most durable; and finding that 'twas Iron and Copper; and especially that the latter was the fairest and easiest to be melted and cast into Kettles and other domestick Utensils, they made choice thereof, mutually giving and receiving it, by weight; for other things they needed, and divided it by pounds, which word still remains amongst us, to signifie twenty shillings, which is very neer the just value that a pound of Copper had in those days. And to save the labour of weighing this pound and



and the parts of it, they stamp'd upon one side the figure of a ship, with the weight and value (because *Saturn*, the inventor of money in *Italy*, arriv'd there in a ship) and on the other side the pourtrait of one of those beasts which are design'd by the word *Pecus*, whence Money came to be call'd *pecunia*. Afterwards the Arms of the Prince were substituted in stead of the Ship, and *Constantine* put a Cross in place of the Beast. Now because, in old Gaulish, a Ship was call'd *Pile* (whence the word *Pilote* remains to this day) the side of the Coin on which the Ship was is still call'd *Pile*, and the other *Cross*, how different stamps soever have succeeded since. Nevertheless exchange is more universal then buying and selling, particularly between State and State, transportation of money being generally forbidden, and only the carrying away of Merchandize for Merchandize allow'd. Moreover, there are more Nations who exercise Commerce by trucking, then there are that make use of Money. It seems also to be more convenient for particular persons, it being more difficult for him that is in necessity to sell what he hath, many times, at a low rate in money, and to buy dearly what he wants, then to give out of his abundance to him that needeth, and receive from him in consideration thereof what himself wanteth.

The Second said, That Exchange being founded upon Commutative Justice, and introduc'd by the mutual necessities men have of one another, consists in the comparing of things between themselves; so that according as one thing exceeds another in price and value, or else is exceeded by it, the excess or defect of the one side or the other must be equally compensated. To which purpose men make use of two measures, the one natural, and the other artificial. The natural measure is the scarcity of things compar'd with their publick use. Whence it comes to pass that the less there is of a thing which is greatly us'd, 'tis the dearer; and, on the contrary, the price is diminish'd according to the greater plenty thereof. For 'tis not barely the goodness of the thing, nor its rarity or its necessity, that is the cause of its value; but all these together referr'd to its use. So water, which is better and less hurtful to man then wine, is nevertheless of less price. Corn is more necessary then Sugar, yet not so dear; and the rarest Plants, which are no ingredients into the compositions of Physick, scarce find buyers. Now Money is the artificial measure, invented by men, for measuring the price and value of all things, both real and imaginary, moveable and immoveable. These two measures are different, in that the abundance of things diminishes their price; scarcity and defect augments it: but contrarily, the plenty of money enhances the price of things, and its scarcity diminishes it: whence the more money there is in a State, the dearer every thing is; as appears by comparing our Age with that of our Grand-fathers before the discovery of the West Indies; when they were richer and had more Merchandize with a thousand Crowns then we have  
now



now with ten thousand. And on the contrary, the more things there are to exchange, the truck or traffick is the easier; although that's the happiest Country from whence more is exported than imported into it. But because many times the parties could not agree, he that needed an Oxe possessing nothing that lik'd the owner, and some things of too great value being with all incapable of division, as a House or a Ship; therefore they invented money to supply all these defects. This money, in some Countries, consisted of Shells; in others, of precious Stones; elsewhere, of other things; but most commonly of Metal. And although it be not absolutely necessary, yet it is much more convenient than Exchange; for by means thereof a man may do every thing that can be done by permutation, and something more. Whence it is, that Princes always prohibit the transportation of it, but that of other things only upon some occasions. For money is, with good reason, said to be every thing potentially.

The Third said, That as it was sometimes doubted whether *Cæsar's* birth were more happy or fatal to the Roman Empire, which he on one side adorn'd with glory and triumphs, and on the other desolated by Civil Wars: so 'tis hard to judge whether the invention of Gold and Silver Coin hath been more beneficial or pernicious to mankind. For 'tis true, it greatly facilitates Commerce amongst men; but it likewise brings along with it covetousness, and the desire of having it. For whereas at first the most avaritious were forc'd to set bounds to their covetousness, when their Granaries, Sellars and Houses were full; and also when Iron money came in use, it took up almost as much room as the things themselves; now, since the invention of Gold and Silver Coin, men have begun to reckon by Millions, which give less content to the possessors than pains to acquire sollicitousness to preserve and trouble to lose them.

## CONFERENCE XL.

I. *Of Prognostication or Presaging by certain Animals.*

II. *Why all men love more to command than to obey.*

I.  
Of Divination  
by some  
Animals.

**M**AN is affected to nothing more passionately than to the Faculty of Divining. Upon this account he paints Prudence, the most necessary of the Cardinal Vertues, with a double countenance, one whereof speculates futurity. And because this knowledge of things to come would rid him of the two most violent passions which perplex him, Fear and Hope, therefore he spares nothing to attain the same. To this end he employs



employs not only the four Elements, but makes a distinct art of the ways of Prediction by each of them. He makes use of all mixt bodies too, and searches even the bowels of living creatures, yea the very Sepulchres of the dead, in quest of Presages of the future. And although, speaking absolutely, such inventions are more capable to attract the admiration, and consequently the money of credulous persons, then to instruct them (unless perhaps, in prudence, to take care of being so easily deceiv'd afterwards) yet there seems to be a correspondence and connexion between present and future things, as there is between the pass'd and the present; for as he who perceives the corruption of unburied bodies after a Battle to have infected the air, and begotten the Pestilence, may certainly refer the cause of such Contagion to the War; so he that shall behold a furious War in which great Battles are fought may conjecture an approaching Pestilence. Possibly, if we were as careful to contemplate the changes of all other bodies, Minerals and Vegetables, we should remark therein Presages as much more infallible than those of animals, as their actions, being more simple, are likewise more certain; as may be instanc'd in the Mulberry-tree, which buds not till all the cold weather be pass'd; but because the Local Motion which is proper to animals, affects us more, thence it becomes also more remarkable.

The Second said, That man must not be forgotten in this Disquisition. For not to speak of Prognostication in his diseases, by means whereof the Physitian gets the esteem of a God, we see old men and other persons so regular in the constitution of their bodies, that they will tell you, beforehand, better than any Almanack, by a Tooth-ach, a Megrin, or a Sciatica, what weather is approaching, whether rain, frost or snow, or fair. This is commonly attributed to the rarefaction or condensation of the peccant humours in their bodies, the same discharging themselves upon what part they find weakest (as the weakest are commonly the most oppress'd) and there making themselves felt by their acrimony: but the parties are no longer sensible thereof then that intemperate weather continues, a new disposition of the air causing a new motion and alteration in the humours. When Cats comb themselves (as we speak) 'tis a sign of rain; because the moisture which is in the air before the rain, insinuating it self into the fur of this animal, moves her to smooth the same, and cover her body wherewith, that so she may the less feel the inconvenience of Winter; as on the contrary, she opens her fur in Summer, that she may the better receive the refreshing of the moist season. The crying of Cats, Osprey's, Raven's, and other Birds, upon the tops of houses, in the night-time, are observ'd by the vulgar to pre-signifie death to the sick; and those creatures are thought to know the approach thereof by their cadaverous scent, which appears not to us till after their death, by reason of the dulness of our senses;  
it



it being no less admirable that such carrion Birds smell better than we, then 'tis to see a dog distinguish by his smelling the traces of a Hare, which are imperceptible to us. But it may as well be, that these Birds cry by chance upon the first house where they light, and are heard only by such as watch in attendance upon persons dangerously sick; they being likewise Birds of but a weak sight, and therefore flying abroad most commonly in the dark. As for the fore-sight of fertility, by the *Honeton*, and of a calm, by the *Halcyon* or *Kings-fisher*, these ought to be referr'd to the same instinct of Nature, which guideth the Spider to weave her nets, and the Swallow to build her nest.

The Third said, There is a close connexion between the superior and inferior bodies, the chain whereof is to us imperceptible, though their consecution be infallible. This was signifi'd by *Trismegistus*, when he pronounc'd that that which is below is like that which is on high, and therefore 'tis not to be wonder'd if one be the sign of the other.

The Fourth said, Certain Animals are found under the domination of one and the same Starr, of which subjection they have some character either external or internal. And 'tis credible that all bodies, especially Plants, have figures or characters of their virtues, either within or without. Thus, they say, those Plants which are prickly, and whose leaves have the shape of a spears poynt, or other offensive armes, are vulnerary; those which have the spots or speckles of a Serpent, are noted to be good against poysons; and all are serviceable for the conservation of such parts, and cure of such diseases as they resemble in figure. In like manner, 'tis probable that the Cock hath a certain internal character which particularly rank him under the dominion of the Sun; and that this is the cause that he crows when his predominant planet possesses one of the three cardinal points of Heaven, in which the same hath most power, namely, in the East, when the light thereof is returning towards him; in the South, at which time he rejoyces to see it at the highest pitch of strength; and at mid-night, because he feels that it is then beginning again to approach to our Hemisphere. But he crows not at sun-set, being sad then for its departure, and for that he is deprived of its light. And, for this reason, in my opinion, the *Romans* chiefly made use of young Chickens, from which to collect their auguries; because they conceiv'd that being Animals of the Sun, and more susceptible of its impressions, by reason of their tenderness, they were more easily sensible, and consequently afforded more remarkable tokens by their motions and particular constitution, of the various dispositions of the Sun, in reference to the several Aspects of good and bad Planets, especially of *Saturn* their opposite. Whence judging, by the dulness and sadness of the Chickens, that the Sun was afflicted by a bad Aspect of *Mars* or *Saturn*; they drew a consequence, that since this Luminary, which besides its universal power, was the



the Disposer of their fortune with *Mars*, was found ill dispos'd when they were projecting any design, therefore they could not have a good issue of it. Thus people prognostice a great Famine or Mortality when great flocks of Jayes or Crows forsake the woods; because these melancholy birds, bearing the characters of *Saturn* the author of famine and mortality, have a very early perception of the bad disposition of that Planet.

The Fifth said, Thence also it is, that if a flie be found in an Oak-apple, 'tis believ'd that the year ensuing will be troubled with wars, because that Insect being alwayes in motion, and troublesome, is attributed to *Mars*. If a spider be found in the said Excrecence, then a Pestilence is feared, because this Insect hath the characters of malignant *Saturn*; if a small worm be seen in it, then, this Insect being attributed to *Jupiter* and *Venus*, plenty is prognosticated. Now, did we know all the internal or external characters of Animals, we might by their motion and disposition obtain some knowledge of that of their Star, and thence draw some conjectures of futurities. But this cannot be done by the deportments of Men, because these are varied by a thousand businesses, imagination and troubles, and especially by their free Will and Dissimulations; the latter wherereof puts them upon outward motions contrary to their internal, and the former carries them, by the sway of their wills, against the course of cœlestial impressions.

Upon the Second Point it was said, Man is one of the weakest, but the most ambitious of all Creatures. He accounts himself worthy to command, not onely over all that is below him, but also over all his equals. And did not shame restrain him, he would willingly give his own suffrage for himself, when the person of greatest sufficiency were to be nominated. Hence it is, as I conceive, that we have as many Enemies as Servants, if the Proverb be true. For the Servant accounting himself equally or more able to command than his Master, believes that Nature or Fortune do's him wrong in leaving him in that condition, and therefore he aspires to change it. The opposition of Contraries contributes also thereunto; for observing the evils which attend such as are reduc'd under the will of another; and on the other side, the content which Masters seem to have while they live at their own discretion, and more easily suffer any evil of their own doing, because every Man can better bear with himself than with another; hereupon they as much desire command as they detest obedience. Now besides all this, the reason why we are so enamor'd of command, is, for that every thing desires to be in action, because all *being* consists primarily in action. Our Will, accordingly, is forward to exert the act of volition; but it willeth onely by halves, when it is controll'd; and nothing offends us more then when we command, and no body stirs to obey us; so that some are impa-

II.  
*Why Men  
love more to  
command  
then obey.*



tient of being gain-said, even in things notoriously impertinent or unjust. Witness *Philip of Macedon*, who having unjustly condemn'd a poor woman, chose rather to pay her condemnation for her to her Adversary, then retract his own judgement. 'Twill perhaps be objected, that there are good Fryars and Nuns, who love better to obey then to command. I answer, that in this act as well as in other mortifications of their appetites, they acknowledge that they under-go very great difficulties; and these prove the truth of the Proposition. Yea, obedience and the resignation of our own will is more hard to observe then Poverty and Chastity; inasmuch as the goods of Fortune and the Body are inferior to those of the Mind.

The Second said, This Question hath no difficulty in the general, since all they who are contented with a servile condition, make their obedience subservient to their desire of raising a fortune, which may one day enable them to command. Nor is the reason of it less easie. For since no motive is more powerful to incline the Will of Man then Delight and Profit, no other reason of this desire need be search'd, since superiority affords such sensible pleasure, and conspicuous advantage; command being, to speak truth, nothing else but an effective power of applying what means we please wherewith to compass our Profit or Delight. But seeing Nature hath establish'd this Law, that Inferior things ought to obey the Superior, the less worthy the more worthy; so that Obedience and Command are the different consonances which compose the Harmony of the world; Whence is it that Man alone raising up the Tones or Notes of his Ambition interrupts the Consort of the Universe, and makes Discord amongst this agreeable Musick? The reason hereof is, that as Nature gives no desires but she also gives power, so she gives no power without desire. Wherefore having made Man free by a power, to wit, a Will most free and independent, she has also made him free by Inclination and Desire. Now forasmuch as Obedience is the restriction and modification, or rather an annihilation of, and contrary motion to this Will and desire of freedome, 'tis no wonder that Man so abhors servitude and desires command; because in doing so he most powerfully exercises his will in all its extent.

The Third said, The Will of Man being alwayes mutable, and in perpetual motion, 'tis no marvel if it abhors Obedience which checks its course, deprives it of the means of change, and usually carries it by a retrograde motion against its own inclination. Yea, 'tis an ordinary thing for Men to be averse to do or abstain from any matter whatsoever, onely because it is commanded or forbidden; although we had a desire to do it before, or at least it was indifferent to us. Whence arose the Proverb, That Forbidding inflames Appetite; and the more, for that the order which is given us introduces into our Will another strange Will, which, though like and conformable to ours, yet displeases



displeases us, as it is forinsecal ; as the motion which would have been natural to the stone, if it had been barely let fall from on high downwards, becomes violent to it when it is cast down.

The Fourth said, This desire proceeds from the love which we bear to our selves, so natural to Man, that it lives first, and dyes last in him. Now Man loving himself more then any else, and love having for its foundation the perfection and merit of the thing lov'd ; hence he esteemes himself more perfect, and consequently more worthy to command then any other. And this causes him to desire a thing which he accounts due to him.

The Fifth said, That as some Men are naturally lead to command, so others are inclin'd of their own accord to obey and serve. The former are call'd, by the Philosopher, Lords and Masters by Nature, having an Heroick Spirit, and capable of governing not themselves onely, but others too ; their Bodies being usually weak and delicate, hair fine, and skin smooth and thin. Others are servants by Nature, being strong and sturdy, fit to carry burthens, to undergo labour, and such incommodities as attend those who are subject to another's Will ; they have also, many times, so little capacity, that they have more of the beast then of the Man ; and this by the ordering of Divine Providence, lest having good judgements and quick wits, they might reflect upon the equity or injustice of their Masters commands, and so not execute them as they ought ; or lest the consideration of their misery, being thereby alwayes present with them, might render them more unhappy.

The Sixth said, That Man having been created by God for command, as holy writ attesteth ; he alwayes retaines the remembrance of his original, and would be Master every where. For though the Creatures upon which the dominion given him by God extends, seem to have been refractory to him ever since his sin ; yet the most part still acknowledge in him some tokens of their ancient Lord. The otherwise most unruly Horse suffers himself to be manag'd by him, and a troop of Oxen is driven by a Child. The most furious Animals become gentle, and tremble at the occurse of Man's Countenance, because they find therein the characters of Divinity. But as 'tis natural to other Animals to obey Man more perfect then themselves, so it seemes to Man a thing against Nature for the more perfect to obey the less.

The Seventh said, That the desire of commanding hath not place in all, nor at all times. The Master of the Ship willingly resignes the management of the helm to an experienc'd Pilot, and disbanded Souldiers readily suffer themselves to be rally'd and conducted by those whom they judge the most worthy to command them. Others, farr from this desire, submit and tye themselves, by natural inclination, to the pleasure of an other.



Moreover, some Virtues are so heroical and eminent that they win hearts, as it were, by violence, and constrain the most refractory and ambitious to confess that they ought to be obey'd. By this means a multinous multitude, impatient of all command, hath been brought to lay down their Armes. But we see some Spirits so free, that nothing can reduce them to obedience, neither Promisings nor threatnings. They have so high and extraordinary a genius, that they will prefer poverty and misery, yea, beggary and torments themselves before obedience, and never stoop to the pleasure and will of any other, although they be but little befriended by Fortune or Nature. Whence is this? Why, sometimes from greatness of Spirit, and oftentimes from a disorderliness of Mind which breaks forth, and is not capable of restraint.

The Eighth said, That in the whole Universe the more noble commands the less, the more potent quality predominates over the rest; In Animals the Soul commands the Body, as the Master his servant, makes it move and act as it pleases; and Man exercises sovereignty over beasts; amongst Men, Reason commands the Appetite; in Oeconomy, the Male, as the more perfect, commands the Female; and, generally, the wise, learned, and virtuous, ought to have the command over the foolish, ignorant, and vicious. For I speak of things as they ought to be. But 'tis otherwise if we consider things as they are. Many times the Appetite over-masters Reason; usually fools and ignorants are the strongest. Wherefore if there be found any one amongst Men that differs as much from others as the Soul from the Body, Man from beast, Reason from the Appetite, the Male from the Female, he ought to command. For, according to *Aristotle*, Every Man who commands must be of a different Nature from him who obeys. And as the Shepherd is of another and more excellent Nature than his flock, so he that commands over Men ought to be a God, or at least a Heroe. And can you wonder now that every one would have a good opinion had of himself, and be accounted a Heroe or a God?

## CONFERENCE XLI.

### I. Of Comets. II. Whether Pardon be better then Revenge.

I. *Of Comets.* **T**He deceitfulness of our senses causes the difficulty of understanding the nature of Comets. For as some Colours, so some Lights are true, others apparent. Who would not affirm, at a distance, that Gloe-wormes, some kind of rotten wood, the scales of certain Fishes, and the eyes of Cats are real fire? And



And to get to further then Heaven, who would not believe that the Moon and other Planets have a true light, were it not for the reasons of Astronomy? Nevertheless, Experience convinces us of the contrary on Earth, as well as Reason doth in Heaven. Yet because, in doubtful matters, 'tis best to keep to the common-opinion; I concur with that which holds a Comet to be a hot and dry Exhalation inflam'd in the highest Region of the Air, if the Heaven be solid; and amongst the cœlestial orbes, in case they be liquid: which Exhalation resembles the unctuousity of a torch newly extinguish'd; which serving for fuel to the fire, which the reflection of the Sun-beams, or the violence of motion excites there, represents the figure according to which the matter is dispos'd to burn, and appears so long to us till its matter be consum'd, unless more be carry'd up which is proper to succeed it.

The Second said, There is little probability that so thin and subtile matter as the afore-mention'd can burn for several moneths together. Considering that the fires of our furnaces consume themselves in less then a day, unless they be recruited with new matter; and that the vast bulk of these Meteors allows us not to imagine that enough can be found for the sustenance of so great a flame. For that which appear'd in this City in November 1618. occupied forty degrees of the Firmament, notwithstanding its remoteness from our sight, which alwayes makes things appear less then themselves. And the matter which should be lifted up from the Earth to succeed that which is first consumed would not be inflamed, because it could not arrive to the burning Comet in its first place, by reason of its circular motion, contrary to that of Exhalations which is made in a strait line. Nor is this opinion less inconsistent with the place which they assign, namely, the Heaven; inasmuch as many have been above the Planets, as is evidenc'd by their Parallax. For the Heavens being incorruptible, 'tis impossible to phancy any corruption in them, since that which is Eternal cannot but be incompetent with that which is corruptible. Now that they are Eternal, the regularity of their motions demonstrates. And although the Apogees and Perigees of the Planets, which are the points of their greatest and least distance from the Earth, are, according to the affirmation of some Astrologers, chang'd above twenty six degrees since Ptolomy's time; yet this permutation of place induces no mutation of substance. Nor can a Comet be the reflexion or occurrence of the light of some Planets, as those Meteors are which we call *la Rose* and *le Soldat*; for then no Comet could last longer then such occurse, which is but momentaneous, by reason of the continual motion of the Planets; besides that they might be as certainly prognosticated as Eclipses. But forasmuch as there are some things which we know no further then by negation, I conceive it more easie to say what a Comet is not, then to determine what it is. The



The Third said, A Comet is onely an appearing, not a real light ; and 'tis produc'd by the darting of the Sun-beams through an Exhalation , which is fit for this purpose by its substance somewhat thin in the surface for intromitting the beams, and dense within for reflecting them, and giving them the colour of fire ; like as when the Sun casting his rayes upon the clouds, at Morning or Evening, gives them a ruddy colour. And according as those are united or compacted, enlighened by the Sun, or regard several quarters of the world ; so the Comets have different shapes or figures, which ought no more to astonish us then these of the Clouds ; which according to their conjunction together represent innumerable formes ; or at least then those of other fiery Meteors, variously figur'd according to the casual occurrence of the matter which composes them. Therefore *Scaliger* in his Exercitations holds that Comets are neither signes nor causes of the events which follow them, and derides those who believe that they fore-shew the death of Great Persons, or that destruction of Nations and Kingdomes ; alledging that many great Great Men have dy'd, yea, many Illustrious Families and States been destroy'd, without the appearance of any Comet ; and, on the contrary, that many Comets have appear'd, and no such accidents ensu'd.

The Fourth said, That Comets are certain Stars whose motion is unknown to us, and who being rais'd very high in their Apogæum, remain for a long time invisible. This is of no unfrequent observation in *Mars*, who, as many Astrologers affirm, is at some times lower then the Sun ; and at other times so high above the rest of the Planets superior to his sphere, that his body remains hid when his opposition to the Sun ought to render it most conspicuous. In like sort, those Stars which God reserves as instruments of the greatest events, which he hath fore-ordain'd to come to pass in the Universe, remain a long time elevated in their Apogæum, till they come at length to descend towards the Earth ; from whence, as soon as they begin to manifest themselves, they attract great quantity of vapours ; which receiving the light variously, according to the nature of the places whence they were rais'd, represent to us sundry shapes of hairy and bearded Stars, or in form of a Dart, Sword, Dish, Tub, Horns, Lamps, Torches, Axes, Rods, and such others, as it falls out. And although those Stars incessantly act, yet coming to be produc'd anew, and being nearer the Earth, their effects are augmented and become more sensible. As the Fish ceases neither to be nor to move when it is in the bottome of the Sea, yet it appears not to us to have either existence or motion, unless when it comes near the surface of the Water.

The Fifth said, that Comets must needs be some extraordinary things, since they alwayes presignifie strange events, especially in Religion. Histories observe that of sixty six Comets which have appear'd since the Resurrection of our Saviour, there is  
not



not one but hath been immediately follow'd by some disorder or division in the Church, caus'd by Persecutions, Schismes or Heresies. That which *Josephus* relates to have appear'd over the Temple of *Jerusalem*, and lasted a year (contrary to the custom of others, which exceed not sixty days) was follow'd by the ruine of Judaism. That of which *Seneca* speaks to have appear'd in *Nero's* time, was the forerunner of the Heresies of *Cerinthus* and *Ebion*. That of the year 1440 foreshew'd the Heresie of *Nestorius*. That of the year 1200, the division caus'd by the *Waldenses* and *Albigenses*. And lastly, those which have been seen since the year 1330 have sufficiently manifested the truth of this effect by the multiplicity of Sects wherewith Christendom abounds at this day. But especially, the thirty Comets which have appear'd in *France* since the year 1556 (four of which were in the same year, namely, in the year 1560) but too well witness the verity of their presignifications, which (as *S. Augustine* saith) are ordinarily fulfill'd before the same are known by men.

The Sixth said, That as in all things else, so in Comets, the magnitude demonstrates the vehemence and considerableness of the future event. The colour signifies the nature of the Planet under whose dominion it is. The splendor or brightness shews the quick and effectual activity thereof, as its less lively colour testifies the contrary. The Form is a Celestial character or hieroglyphick, denoting an effect in the earth; as if God spoke to us by signs, or writ to us after the mode of *China*, where the figures of things stand for letters, not contenting himself to destinate to this purpose the combinations of the Planets with the other Stars, which are the next causes of all natural effects here below. The place of the Air, or of Heaven, namely, the sign of the Zodiack wherein the Comet is, serves to design the Country which is threatned by it; and if it be in a falling House, it signifies sudden death. Its motion from West to East indicates some forreign enemy, whose coming is to be fear'd. If it move not at all, 'tis a sign that the enemy shall be of the same Land upon which the Meteor stops; so likewise if it goes in twenty four hours from East to West; because this motion is imputed to the first mover which hurries along withall the other Celestial Bodies. Their effects also belong to the places towards which their hairs or tails incline. Those which appear at day-break, and continue long, have their effects more sudden; those of the evening, and of less continuance, later. They are especially of great importance when they are found with any Eclipse: and the Precept which *Ptolomy* and his Interpreters enjoyn principally to observe, is, that those are deceiv'd who believe that every Comet signifies the death of some great person; but they only hold, that as when the fiery Planets rise at day-break, as so many attendants on the Sun, he that is then born shall be a King; so when a Comet is the fore-runner of the Sun

at



at day-break, it signifies the death of some great person.

The Seventh said, That Comets do not so much foretel as cause Dearth and Famines, Wars and Seditions, burning Fevers, and other diseases, by the inflammation which they impress upon the Air, and by it upon all other bodies, and most easily upon our spirits. For seeing, twinkling, and falling Stars, are signs of great drought and impetuous winds, when they shoot from several parts of Heaven; how much more are those great fiery Meteors which we contemplate with such solicitude, and which act no less by conceit upon our souls than by their qualities upon our bodies. Which being found to have place in those of delicate constitutions, as great persons are, occasion'd the opinion that those grand causes exercise their effects most powerfully upon people of high rank; besides, that the accidents which befall such persons are much more taken notice of, than those of the vulgar. But herein there is found less of demonstration than of conjecture.

II.  
*Whether  
Pardon be  
better then  
Revenge.*

Upon the second Point it was said, That there is none but prizes an action of clemency and forgiveness more than an action of vengeance. But all the difficulty is to distinguish what is done through fear from what proceeds from greatness of mind. Thus, when a Lyon vouchsafes not to rise for a Cat or little Dog that comes near him, but employs his strength only against some more stout creature, this disdain is not call'd cowardize. But, when a man doth not revenge himself, if it be through inability 'tis prudence; if through fear, 'tis pusillanimity. Yet *Alexander* was deceiv'd herein; for when two Dogs of extraordinary stature were presented to him, by a person who made great account of their courage, and he saw that one of them did not defend himself against other Dogs, he commanded him to be kill'd; and would have done as much by the other, had not he who presented them alledg'd that the Dog's neglect of revenging himself proceeded from contempt of his opposers. Whereupon the King caus'd a mad Bull to be turn'd loose to the other Dog, who finding a subject fit to shew his courage upon, flew upon him and tore him in pieces. It appears therefore that there is some resemblance in the action of him who forbears through poorness of spirit to revenge himself, and of him who doth it through greatness of courage. The sole difference consists in the power which the latter hath to vindicate himself, and the others wants. 'Tis demanded which of the two is most honourable in him who is able to do either; I conceive Pardoning the more honourable; not only, because it includes in it self the power of revenge; but because it shews a greater strength to overcome one's self than the strongest things in the world, and so become master, generally, of bodies and minds together.

The Second said, That although at the first view it may seem that



that a man ought rather be inclinable to Pardon than Vengeance, because Nature hath for this purpose furnish'd him with Reason as his principal weapon, to which Forgiveness is an action particular, as proceeding from ratiocination, or, at least, from humanity; yet the desire of Revenge hath not been given us by Nature for a useless faculty, and such as ought not to be reduc'd into act. For this Desire is so great in us that it extends even to inanimate things. And to pass by the follies of *Xerxes* who caus'd the Sea to be beaten with stripes, and writ a challenge to mount *Athos*, in revenge of the fear which they had given him, and that of *Cyrus* who amuz'd his whole Army a long time, about the river of *Gnidus*, for the same cause: do we not see that little children are pacifi'd when the table which hurt them is beaten, and that Gamesters many times tear the Cards in pieces with their teeth, and cast the Dice out of the window, to be reveng'd of their loss? Hence *Anaxagoras* said that even they who pardon always revenge themselves, because the satisfaction given them, or their remission of an offence, supplies the place of punishment.

The Third said, 'Tis indeed natural to man, with all other living creatures, to preserve himself; which cannot be done but by repelling the injuries which are offer'd to us; nor this, but by revenge: For an injury is like fire which burns and reduces all into ashes unless it be timely remedied; one tolerated produces another, and by degrees brings us into the scorn of the world. Therefore the Divine Law agrees with the *Lex Talionis*, or Law of Requitall, eye for eye, tooth for tooth. And as this vengeance is one of the principal qualities which God reserves to himself, so it is one of the chief parties both of publick and private justice. He who is remiss in revenging affronts done him, is unjust; first to himself, in being careless of maintaining his honour; and then to others, in that he suffers the respect to be violated which men owe one to another; yea, to him too who offends him, because he gives him encouragement to do as much to others, while he findes he may do so without impunity.

The Fourth said, That Revenge is an encroachment upon the Authority of Laws both Divine and Humane; God hath reserv'd it to himself, wherewith to defend us; and yet himself revengeth no further then to four Generations, and pardons to a thousand. He hath as strictly bound us to forgiveness as to our own safety, since he permits us to pray to him daily for no more pardon then what we grant to those who offend us. Moreover, he who takes satisfaction in stead of executing it cannot more palpably declare the ill opinion he hath of the Laws under which he lives, and which he annihilates as far as lyes in his power. 'Tis this accursed Mis-conceit which hath opened so wide a door to our duels and re-encounters, as can hardly be shut at this day by many Ordinances and Edicts. And if it im-



ports the publick, as the Lawyers hold, That no man abuse his own goods ; how much less his life, whereof he hath but the use, and which is due to the service of his God and his King. Add hereunto, that as every thing which is violent is an enemy to Nature, and of no long duration ; so people seldom find constraints and rigours to answer their purpose ; Man never suffers himself to be wholly subdu'd and bound, no more then the Oxe, saving by the strongest part, the one by the horns, the other by the will. Which caus'd *Livia*, the wife of *Augustus*, when she saw that the more he punish'd those who conspir'd against him the more new enemies he procur'd to himself, to advise her husband to try upon *Cinna*, one of them, whether pardon would not have better effect then Proscription. He did so, and this Conspirator became thereby so great a lover of the Emperour, that he afterwards merited by his services to be made his heir.

The Fifth said, That there ought to be made a distinction of conditions ; because 'tis as dangerous in a publick person to be gentle and merciful, as 'tis commendable in a private. The mildness of a Judge towards a Robber is cruelty to the publick ; impunity being the Nurse of Vice. Moreover, among private persons too, their several professions are considerable. *Socrates* purposing to make himself an example of moderation had reason to slight the kicks that were given him, as he would have done the winings of an Ass. But the Captain that should suffer so much must have otherwise given the world such testimony of his valour, as to avoid the imputation of cowardize. And, therefore, that man had no bad conceit, who seeing his friend perplex'd for that he understood by the Horoscope of his two children, that one of them would be the greatest coward, and the other the greatest thief in the world, counsell'd him to make the one a Church-man, and to put the other to a profession whereunto the word *Larron* is an Epithete, being the latter would thereby turn the prediction into a mockery ; and the defect of courage in the other would be attributed to the gentleness whereunto Ecclesiasticks are more oblig'd then any others.

The Sixth said, That without some vengeance we should not understand what Forgiveness means, as God's justice is that which sets off his mercy. Wherefore being these two actions mutually contribute to either's lustre, 'it cannot be known which of the two is absolutely to be preferr'd before the other ; but it lies in the power of prudence to determine according to the variety of cases.



## CONFERENCE XLII.

I. *Of the Diversity of Languages.* II. *Whether is to be preferr'd, a good stature or a small.*

WE have two notable examples in the Scripture ; one of I. God's displeasure, when the Builders of the Tower of *Babel* were separated by the confusion of their Language ; the *Of the diversity of Languages.* other of his favour, when the Apostles were at the feast of *Pentecost*, as it were, united and incorporated into all Nations by the gift of Tongues. Here we only adore Mysteries but fathom them not ; we seek the natural causes of the variety of speech, and whether, as there was but one at the first, so the same may be recover'd again, or any other found that may be universal to all people. As to the first, the variety alone of the Organs seems sufficient to diversifie speech. Those Nations whose wind-pipes were more free easily retain'd the *Hebrew* aspirations, if so be this Language were the first, and not the *Syriack*, as some hold, alledging that its characters speak greatest antiquity ; or the *Samaritane*, because the *Thorath*, which is the law of God, was written in it, as also the most ancient Medals found in *Palestine* were stamp'd with it. They whose breasts were more robust fram'd the *German* and other Languages, which are pronounc'd with greater impetuosity : the more delicate made the *Greek* Tongue ; the middle sort, the *Latine* ; and their posterity, degenerating, the *Italian*, which is pronounc'd only with the outer part of the lips : and so of all the rest. Whence it is that strangers never pronounce our Language perfectly, nor we theirs ; which caus'd *Scaliger* to tell a *German* who spoke to him in *Latine*, but pronounc'd it after his own way, that he must excuse him, for he did not understand Dutch. Now every one of these Original Languages was chang'd again proportionably to the distance from its centre, as circles made by a stone cast into the water lose their figure as they become wider. Afterwards hapned the transplantations of Nations, who with the confusion of blood and manners brought also that of speech ; for the Conquerours desiring to give Law to the vanquish'd as well in this as in all other things, and the Organs of the people being unapt for the pronuntiation of a foreign tongue, hence of the mixture of two arose a third. Thus much for the first point. But as for the second, which is to reduce all Languages to one, I hold the thing impossible. For all things which are meerly of humane institution, as Language is, are as different as opinions are. And if one and the same Tongue hath sundry very different Idioms and Dialects, as the *French* hath the *Breton*, the *Gascon*, the *Poitevin*, the *Parisian*, and many others, as different as the *French* from the *Italian* (which



hath in like manner the *Roman*, the *Tuscan*, the *Neapolitan*, and the *Sicilian*, all very differing) with much more reason shall Nations divided by Seas and Climates speak diversely. The opinions of men, even of Philosophers themselves, touching the same subject, could never be reconcil'd; and can it be imagin'd that all tongues should ever agree? Nature affects nothing so much as variety, which serves for discrimination of individuals. Two men never writ or spake alike; and we see that even the gestures and postures of others cannot be perfectly imitated by those who use their utmost care therein; how then shall conformity be found in the expression of our thoughts? besides, there being no connexion or affinity between things and words, which not onely signifie several things in several Languages, but have different acceptions in the same Language, witness *Homonymous* words, 'tis loss of time to think of such a designe.

The Second said, That to judge of a River, it must be taken at its source. Languages are the several ways of interpreting or declaring our conceptions; and these are the means which our mind makes use of to conceive the species or images of things. It knows them according as they are represented to it; and they are represented to it according to the truth of the object, when the conditions requisite to sensation or perception by sense concur, namely, a due disposition of the object, *medium*, and Organ. As therefore when all these conditions are right, it cannot be but all persons of the world must agree in one and the same judgement, and all say (*e.g.*) that this Rose is red, and that other white; so it may seem that men should agree together in the copy and transcript, since they do so in the Prototype; that is, have one and the same Language, since they have one and the same conception. Otherwise, as to this communication with his own species, man will be inferior to other animals, who signifie their passions and inclinations so plainly and intelligibly among themselves that they answer one the other afar off? Moreover, abundance of words are the express and natural image of the things designed by them, as *Taffata*, to *hisse*, to *creak* or *clash*, to bounce, to *howle* or *yell*, and many others. There are words which keep the same number of letters in all the learned Languages, particularly the name of *God*; which holds also in some modern, as in the French, Dutch, &c. but not in ours. There are others, which vary not at all, but are one and the same among all Nations; as the word *Sac*. Many things express'd by the same characters in writing are read by each people in their own Tongue, as *Figures*, or *Cyphers*, which are read and pronounc'd otherwise in Hebrew, and Greek, then in Latine or French, and yet they are taken by all to signifie the same thing. The same may be said of the Hieroglyphicks and letters of *China*, yea of all the figures of the Mathematicks. For every one knows a Circle, a Triangle, and a Square, although each



each Nation denominate the same diversly. What hinders then but as all Nations have conspir'd and agreed together in those visible words, so they may do too in those which are pronounc'd ?

The Third said, That to the end words may make things understood by all the world, they ought to be signs of them; either *natural*, as smoak is of fire, or by *institution*, depending upon a very intelligible principle or occasion, as when a Bush denotes a Tavern. As for the first, many dumb persons express their conceptions so genuinely by signs that all the world understands them; and the Mimicks and Pantomimes of *Rome* were so excellent in this kind, that *Roscius* (one of them) sometimes bid defiance to *Cicero*, that he would express as perfectly by his gestures and postures, whatsoever he pleas'd, as that incomparable Orator could do by his words. And as those who are not given to writing have the best memories, so those who have not that use of speech are more excellent then others in speaking by signs and understanding them; there being seen in our days a dumb man who answer'd pertinently to all that was spoken to him, only by beholding the motion of the speaker's lips: which is also the reason why blind men, attending only to improve the sense of Hearing, best observe all differences of speech. Whence I draw this consequence, that the same may be practis'd in all other things which signifie by humane institution, and so there may be an universal Language. But the easiness every one finds in making himself understood by the Language and Writing which is familiar to him, renders men careless of advancing this excellent Design, which would be a means to spare the best time which our youth spends in learning the words of strange Tongues, instead of applying themselves solely to the knowledge of things.

The Fourth said, That the possibility of this Project appears, in that there is an order in nature, or, at least, consequent to the very nature of things, according to which we may place, next after the Creator the created spiritual substances, then the corporeal (one after another, according to their dignity) particularly the corporeal according to their place, as the Heavens first, and in them the Stars, according to their dignity; the Earth and its Animals, the Sea and its Fishes; the Plants according to their magnitudes; those which are equal therein, according to their virtues, and other accidents: doing the same, with Metals, Minerals, bodies perfectly and imperfectly compounded by nature and by art, and with the Elements: then we may come to the Categories of accidents to which every thing in the world may be reduc'd and put in its right place. Whereby it is evident that not only all things have their order but also that he who learns them according to this order, easily avoids confusion, the mother of ignorance. It remains, now, to find out an order of words too, which answers to that of things; the first  
to



to the first, and the second to the second ; which order is so natural to them, that children make use of it to find out every thing which they seek in Dictionaries and Lexicons according to the order of the Alphabet. And I know not whether we ought not to begin this handsome gradation and situation of all things in their rank, correspondent to the order of the letters, with the style that God gives himself, *Alpha* and *Omega*. But it cannot but be admir'd that the first combination of the letters makes *Ab* and *Aba*, which signifies *Father*, the first place being due to the Author and Father of all things.

II. Upon the second Point, it was said, That largeness of body *Whether is, to* seems to be preferable, as well because the word Magnitude *be preferr'd a* or Grandeur always includes some perfection in it self, as be- *great Stature* cause the Gods were anciently represented of a size exceeding *or a small.* the ordinary. Which made *Aristotle* say, that not only the greatness of the Heroes render'd them famous of old, but that their Figures and Statues are venerable at this day. Moreover, we see that *Saul*, the first King chosen by God for his own people, was taller by the head then all the rest of the Israelites. And amongst the conditions of Beauty, magnitude so universally holds the first place, that women advance themselves upon high Shooes, and Patins, that they may seem the handsomer. How well shap'd soever a little man be, he is never of so majestic a presence as one that is taller. Whence you see little men affect to seem greater, but never any tall men desire to be less. Now the same Proportion which is between a Man and his habitation, is found between the soul and the body which is its Mansion. For as he who hath the largest house will be accounted to be better lodg'd then he who dwells in a Cottage, though they be persons otherwise of equal condition ; so 'tis probable, that souls (which are all equal) find themselves better lodg'd in a great body then in a small, and exercise all their functions with much more freedom.

The Second said, That if magnitude put the value upon men, the same should hold in animals : nevertheless, the Elephant yields to the Fox, yea to the Pismire ; the Estrich to the Nightingale ; and the Whale is the most stupid of all Fishes. Moreover, nothing hinders the divine operations of the soul but the load of the body, whereby the imperfection of our nature places us below the wholly incorporeal Intelligences ; and therefore the less the body is, the neerer we approach the Angelical nature, and our spirit is less impeded by the matter. Hence little men are not only the most quick-witted, but also the most active and nimble ; for that the strength is more united in them, and diffus'd and dissipated in others. Great and robust bodies, as being fitter for labour, were made to obey the small and tender, which have more spirit then flesh. Whence the Romans gave the Civil and Military charges to little men, and sent the greater



greater to guard the Baggage, as those who gave the enemies more aim then the less. Nor are the greater more proper for other Arts; which made the Poet say as a thing impossible, *Sambucam potius caloni aptaveris alto*.--- And *Samuel* was reprov'd by God for offering to prefer the tall Stature of the eldest son of *Jesse* before the small size of *David* his youngest, as if the Israelites had been displeas'd with the large body of *Saul*. The Poets could not represent an enraged Cyclops, and furious *Ajax*, but under great bodies, as, on the contrary, they made *Ulysses* very small. And indeed natural Reasons agree well herein. For amongst the causes of the bodie's growth, the *material* is a slimy or viscous humidity; whence Fish grow most, and in shortest time. This Humidity is, as it were, Glew or Bird-lime to the soul, hindring it from exercising its functions freely: and therefore women, being more humid, have less wit than men; and Fish are less disciplinable than the rest of animals. The efficient is a very gentle heat; for were it too great, it would consume the matter instead of dilating and fashioning it, and dry the solid parts too much, upon the increasing of which depends that of the rest of the body. This is the reason why all gelt animals grow most, and amongst Birds of prey the females are always greater than the males; the excess of their heat being temper'd by the humidity of their Sex; and young persons are found to have grown extraordinarily after Quotidian Agues which are caus'd by Phlegme; so that it is not hard for such pernicious causes to produce a good effect.

The Third said, That every thing is to be commended and esteem'd according to the use for which it is appointed. Now Man being born for Reason and the functions of the Mind, and having receiv'd a Body to be an instrument to him of Knowledge by making a faithfull report to him of what passes without, by means of the species convey'd through the senses into the phancy: Upon which the Intellect making reflection formes the like in it self, and thus all Notions are produc'd; it follows that neither the great stature nor the little are to be esteem'd. But 'tis demanded, Which of the two is the less evil; I conceive, with the Physitians, that the great is less incommodious in youth, as being then more proper for exercises, whose toyle it can better under-go, especially those of Warr. And therefore when *Marius* levy'd Souldiers, he suffer'd none to pass the Muster but such as could not walk under a measure rais'd six foot from the ground. But in old age, when the natural heat is more languid, and consequently less able to discharge all its functions in a large Body, the small size is best: And little old men are never so crooked as others; besides that their coldness serves to moderate the ardour of the choler which is attributed to little men, because their spirits having not so much room to run about, agitate them sooner, and more violently than others.

The Fourth said, As every living thing hath bounds of its per-



perfection, so it hath of its greatness or smallness; which, if it exceeds or falls short of, 'tis held monstrous and besides Nature, as Gyants and Dwarfes. But because this term of magnitude hath a great latitude, 'tis hard to know, precisely, which is the least or greatest stature whereunto Man may naturally attain; and which is the middle, and consequently who deserve the name of great or little; considering that the same is various, according to places and climates, and according to every one's particular temper or first conformation, which ordinarily follows the proportion which the seed of the Father and Mother bears with the Idea of their species, if the too great or too little quantity of the matter, or the capacity of the place permit. For the Northern people are large, the Southern small. Those between the 28. and the 38. climate are of middle stature; and one that would be call'd a tall person among the little, will be accounted little among the tall. Constitutions likewise contribute very much hereunto. Those who are dry by Nature are usually small. Such as are too moist grow more in thickness than in the other dimension; it being the property of humidity not to mount easily upwards, unless it be accompany'd with heat; for then the Agent and the Patient being rightly dispos'd to extend every part, the whole is augmented. Therefore as the Phegmatick temper is most prone to fatness, so the sanguine contributes to tallness; especially if the persons live idly and feed well. Hence it is that the men before the Deluge are noted by the Scripture to have been Gyants, because they lead idle, and voluptuous lives. As, on the contrary, Fasting, Watching, and immoderate Labour in the time destinated for men to grow, which reaches not much beyond twenty five years of age, hinder the attaining of the just measure intended by nature; which Divines refer to that of *Adam* and our Saviour; as their bodies were also the rule of the proportion which our members ought to have one to another, and the temper of their humours the standard of ours: whence they were the healthfullest and goodliest of all men: but they were of tall stature.

### CONFERENCE XLIII.

I. *Of the Philosopher's stone.* II. *Of Mont de pieté, or charitable provision for the Poor.*

I. *Of the Philosopher's stone.* **T**He Poets, not without reason, feign'd that the gods left hope to men in the bottom of *Pandora's* box, after all their other goods were flown out of it. For nature being unwilling to shew her self a Step-mother to man hath made such provision, that the almost infinite unhappy accidents of life cannot so much



much cast him down on one hand, as hope raises him up on the other. And, not to speak of that first of Christian virtues, which accompanies him even in death, and serves him for an Anodyne in all his miseries; is he under the rod, he comforts himself with hope to get free from it; is he of mean extraction, he hopes to ennoble himself by his exploits; is he poor, he encourages himself to labour with the possibility of becoming rich; is he sick, the hope of recovery supports his fainting Spirits; yea, when ordinary means fail him, he is not out of heart. But if there be any thing worthy of laughter to those who cannot apprehend it, or of admiration to him that will further philosophize about the odd motions of humane minds, this is one, how 'tis possible that an old, decrepit, poor, diseased person, should nevertheless not despair of having the train of a Prince one day; and not onely hope to be cur'd, but to become a young man again. Yet all this is phancy'd by the seekers of the Philosophers stone, which is the grand work, the Panacea, the Elixir, and the Universall Restaurator. Now this most extravagant conceit, joyn'd to the other absurdities of that Chimerical Art, makes me believe that it is good for nothing but to serve for imaginary consolation to the miserable.

The Second said, That the Chymists who exercise it, are of two sorts. Some by their sophistications give tinctures to Metals which they promise to transmute by their mixture, fixation, cementation, and other operations. Others, who are call'd the true Sons of Art, do not amuse themselves about particular things, but solely about the grand work; at which they all aime, though by several courses. Some think to attain it by blowing, and usually make a mixture of Quick-silver and Gold, which they keep nine moneths in a small furnace over the flame of a lamp. Some conceive, that 'tis a very plain operation, (terming it Children's work) and that there needs onely the knowledge of the matter, the fire, the vessel, and the manner; the rest being done of it self. Yet others attribute this work onely to Revelation, saying that the Artist must onely pray to God; and they believe it is mention'd in the Holy Scripture, where it is said, That much clay is requisite to the making of pots, but onely a little dust to the making of Gold; that 'twas this Wisdom which made *Solomon* so rich, that, by the testimony of Scripture, Gold was common in his dayes as stones; that the Gold of *Ophir* was that which this Philosophical stone had transmuted, far more excellent then the natural; and that the ships he set forth to fetch it were onely parables and figures; like the golden fleece, which was nothing but a parchment wherein this secret was written. But most hold an opinion compos'd of these two, saying, that the Manual operation must be assisted by extraordinary favour from Heaven. I conceive, with them, that there is such a thing as the Philosophers stone, or, at least, that it is possible; that *Salt* is its matter, and *Motion* its



fire. For since these two are found every where, this property agrees very well to them; Salt being extracted out of all Bodies, and Heat proceeding from their friction one against another, in imitation of that which the Heavens excite here below.

The Third said, The Philosophers stone is a Powder of Projection, a very little of which being cast upon imperfect Metals, (as all are, except Gold) purifies and cures them of their Leprosie and impurity, in such a manner, that having first taken away their feculency, and then multiply'd their degrees, they acquire a more perfect nature: Metals not differing among themselves, but in degrees of perfection. It is of two sorts; the white, which serves to make Silver; and the red, which being more concocted is proper to make Gold. Now to attain it, you need onely have the perfect knowledge of three things, to wit, the Agent, the Matter, and the Proportion requisite to the end the Agent may educe the form out of the bosome of that Matter, duly prepar'd by the application of actives to passives. The first two are easie to be known. For the Agent is nothing else but Heat, either of the Sun or of our common fire, or of a dung-hill, which they call a Horse's belly, or of *Balneum Mariæ*, (hot water) or else that of an Animal. The patients are Salt, Sulphur, or Mercury, Gold, Silver, Antimony, Vitriol, or some little of such other things, the experience whereof easily shews what is to be expected from them. But the Application of the Agent to the Patient, the determination of the degrees of Heat, and the utmost preparation and disposition of the Matter, cannot be known but by great labour and long experience: Which being difficult, thence we see more delusions and impostures in this Art then truths. Nevertheless Histories bear witness, that *Hermes Trismegistus*, *Glauber*, *Raimond Lully*, *Arnauld*, *Flamel*, *Trevisanus*, and some others, had knowledge of it. But because for those few that are said to have it, almost infinite others have been ruin'd by it, therefore the search of it seemes more curious then profitable.

The Fourth said, That as Mathematicians have by their search after the Quadrature of a circle arriv'd to the knowledge of many things which were before unknown to them; so though the Chymists have not discover'd the Philosophers stone, yet they have found out admirable secrets in the three families of Vegetables, Animals, and Minerals. But it not the less possible, although none should ever attain it, not onely for this general reason, that Nature gives us no desire in vain, but particularly because all Metals are of the same species, being made of one and the same Matter, (Sulphur and Mercury) and concocted by one and the same celestial heat; not differing but in concoction alone, as the grains of the same raisin do, which ripen at several times. This is evident by the extraction of Gold and Silver out of all Metals, even out of Lead and Iron, the most imperfect of them. So that the Art ought not to be judg'd inferior in this matter to

all



all others which it perfectionates. Moreover, the Greek Etymology of Metals shews that they are transmutable one into another.

The Fifth said, That as in the production of Corn by Nature, the seed and the fat of the Earth are its matter, and its efficient is partly internal, included in the grain, and partly external, *viz.* the heat of the Sun, and the place in the bosome of the Earth; so in the production of Gold by Art, its matter is Gold it self and its Quick-silver; and the efficient cause, is partly, in the Gold, partly in the external heat; the place is the furnace, containing the Egg of Glass, wherein the matter is inclos'd, dissolve'd and grows black, call'd the *Crowes head*, waxes white, and then is hardened into a red mass, the hardness whereof gives it the name of a stone; which being reduc'd into powder, and kept three dayes in a vessel hermetically seal'd upon a strong fire, acquires a purple colour; and one dram of it converts two hundred of Quick-silver into pure Gold; yea, the whole Sea, were it of like substance.

The Sixth said, That Art indeed may imitate, but cannot surpass Nature. But it should, if we could change other metals into Gold; which is impossible to Nature it self, even in the Mines, in how long time soever; those of Iron, Lead, Tin, or Copper, never becoming Mines of Gold or Silver. Therefore much less can the Alchymist do it in his furnaces, no more then he can produce something more excellent then Gold, as this Philosophical stone would be; Gold being the most perfect compound of all mixt bodies, and for that reason incorruptible. And indeed how should these Artists accomplish such a work, when they are not agreed upon the next matter of it, nor upon the efficient cause, time, place, and manner of working; there being as many opinions as there are different Authors. Moreover, 'tis untrue that all Metals are of one species, and differ onely in degree of concoction; for Iron is more concocted then Silver, as also more hard, and less fusible; and their difference was necessary in reference to humane uses. Now perfect species which are under the same next genius, as Metals are, can never be transmuted one into another, no more then a Horse into a Lyon. Yea, could this Philosophical stone act upon Metals, yet it would not produce Gold or Silver, but other stones like it self, or onely imprint upon them its own qualities, according to the ordinary effects of all natural Agents. And if it were true that the powder of Gold produc'd other Gold, being cast upon Metals, as a grain of wheat brings forth many others being cast into the Earth; it would be requisite to observe the same order and progress in the multiplication of Gold which Men do in that of grains of Wheat. Yet the Chymists do not so, but will have their multiplication to be made in an instant.

The Seventh said, That since Art draws so many natural effects out of fitting matter, as Worms, Serpents, Frogs, Mice,



Toads and Bees ; although the subject of these Metamorphoses be much more difficult to be dispos'd and made susceptible of a sensitive soul than insensible metal is to receive a Form divisible like its matter ; he saw no absurdity in it, but that at least by the extraordinary instruction of good or bad spirits some knowledge of this operation may be deriv'd to men ; considering, that we see other species naturally transform'd one into another, as Egyptian Nitre into stone, a Jasper into an Emerald, the herb Basil into wild Thyme, Wheat into Darnel, a Caterpillar into a Butter-fly : yea, if we will believe the Scotch, they have a Tree, whose fruit falling into the water is turn'd into a Bird.

II.  
Of a Mont  
de Pieté or  
Bank for  
lending to  
the Poor.

Upon the second Point it was said, That Charity toward our Neighbour being the most certain sign of Piety towards God ; and Hills having been chosen almost by all Nations to sacrifice upon, as neereſt to Heaven ; upon these accounts the name of *Mont de Pieté* hath been given to all institutions made for relief of the poor ; whereof lending money for their necessity being one of the principal effects, the publick places establish'd for that use retain this name in sundry parts of *Italy, Flanders*, and many other States ; and some have been erected in all Cities of this Kingdom, by the King's Edict of *February* 1626. and the more willingly because Popes were the first Institutors of them ; as that at *Rome* was instituted by *Clement VII.* in the year 1526. and increas'd by *Paul III.* and *Sixtus V.* that of *Avignon* by *Paul IV.* and others by *Pius V.* and *Julius III.* Now because it is not reasonable to lend without security, and the poor ordinarily give not any but their moveables, therefore the name of *Mont de Pieté* is attributed only to the lending upon Pledges or Pawnes. But to the end this Institution might merit the name bestow'd upon it, it were to be desir'd that this loan were gratuitous and free, according to the Gospel precept, *Lend, hoping for nothing again* (*Luke 6. 35.*) conformably to the ancient Law of God, which forbid the Jews to take any thing of their Brethren, besides the principal sum. But to make even for this, they have every where practis'd such excessive Usury towards all other Nations, that the same is turn'd into a Proverb, to denote such exaction as is unmeasurable, and odious to all the world.

The Second said, That it hath always been the intention of Legislators to forbid Usury, call'd by the Hebrews with good reason *Nefchech, Biting* ; which always hurts, how little soever it be. And forasmuch as the avarice of men hath continually withstood that natural Law, which allows not fruit to produce other fruit, nor yet the principal sum any interest, silver being barren of it self ; therefore Usury was limited by the Law *Duilia* to a *Denier* in two hundred ; and the Usurer was more severely punish'd than the Thief ; the latter being condemn'd but to pay double, and the other quadruple. The reason of which

seems



seems to be, for that it is requisite in a State that the rich help the poor ; and because the harmony of a society ceases when some one part is swell'd beyond measure while the others pine and languish ; Hence it was that God instituted Jubilees, which re-establish'd the Jews every fiftieth year in the inheritances of their Fathers ; and elsewhere that was introduc'd which they call'd the new Tables, being a general discharge of all debts without payment. Now what hath been practis'd since to the contrary is a meer toleration, of which heed must be taken, that it become not a Law, no more then other unjust things ; which yet are suffer'd for the eschewing of worse inconveniences.

The Third said, Charity hath three degrees. The first is of those who give. The second of those who lend freely. But because these two are very rare, and besides imply some disparagement to the receiver, the third degree is, to lend upon moderate profit : which loan ceases not to retain the Epithete of charitable, if the Creditor exact not his debt too severely, but allow for the default of time and other circumstances. And the humanity of those who promote lending upon pledges is very beneficial to the poor, who for the most part not having immoveables enough, clear from mortgage, to secure their Creditors, deprive them of the means to relieve themselves by their moveables without selling them ; which sundry considerations oftentimes hinder them from doing. Besides, 'tis the opinion of many Lawyers, that the whole estate of a man taken in gross is in the eye of the Law accounted immoveables, although he have only moveables.

The Fourth said, That unless a new world were fram'd, and every particular person inspir'd with charity towards his Neighbour equal to the love which he bears to himself, 'tis impossible to bring men to lend freely one to another. This is verifi'd by the Law of the *Locrenses*, which strictly forbidding them to lend upon Usury, they forbore not to pervert this Law publicly, the Borrower feigning to steal the Creditor's money, who thereupon took witness of it, and in case the Debtor fail'd to pay him his interest, caus'd him to be condemn'd as a Thief. From which corrupt practice the inventions of our changes and rechanges, loans upon Obligations and Pawns, are not much different ; saving that these latter, being us'd ordinarily with persons whose necessity is most urgent, are likewise more unequitable. So that the same may be said concerning this kind of lending, which a Turk said once to *Mahomet* when he forbad the use of Wine to that Nation, *Thou canst not, said he, keep us from drinking Wine, since we shall always drink it in secret ; but thou maist keep us from violating and transgressing thy Law, by permitting the same to us.* Thus, being experience hath manifested to Legislators that it is impossible to hinder lending upon profit ; even Charity ought to induce them to take away the prohibition  
of



of it, to the end men may offend no longer. Moreover, he that would otherwise remain idle, by this means finds wherewith to exercise his Art or Trade; and money, which would be unprofitable to all such as have only personal estates, affords profit to the owners: besides that 'tis of great advantage to persons under age, many of whom having their fortune in money would otherwise devour the main stock, in stead of finding it increased by their thriftiness in their nonage. Besides that estates in land being already very dear, would become beyond all value, and by that means scarce be of any benefit, considering their excessive price.

The Fifth said, that the principal difficulty to erect a *Mont de Pieté*, or Bank for the poor, consists in such conditions as are much more tolerable then the ordinary lendings upon Pawns. Now those conditions concern two sorts of persons, namely, those who put money into the Bank, and those who borrow thence. Now 'tis fit to make as good composition as can be had with the first; according to what is practis'd in *Italy*, there may be found persons, who having not a stock of money sufficient to maintain them in case they should take no more then the interest allow'd by the Laws of their Country, put their principal into the Bank, on condition to receive a Pension or Annuity for life above the ordinary interest. Others put a small sum in upon the birth of a child, on condition that the child shall receive a considerable one (agreed upon between them) at his marriage; which sum, in case of death, accrues to the Bank or *Mont*. But the same license must not be given to the Creditors, to extort the best terms they can from their Debtors, whose necessity many times receives any Law they please to prescribe them. I conceive, therefore, that there ought to be made faithful supputation of what the interest of the principal (at the lowest rate it can be had) the wages of Officers necessary for prizing, keeping, receiving and delivering of Pawns, and selling the same in case of need, will amount to: that so what this charge comes to may be taken for profit upon the Pawn, and added to the principal; but the remainder restor'd to the owner. And nothing above this is to be suffer'd.

#### CONFERENCE XLIV.

I. *How Minerals grow.* II. *Whether it be best to know a little of every thing, or one thing exactly.*

I.  
*How Minerals grow.*

**U**nder Minerals are comprehended, Metals, Stones, and all sorts of *Fossilia*, or things dig'd out of the earth. The causes



causes of their growing or augmentation are here inquir'd. All the world agrees that they grow; excepting those who hold that God created them at the beginning together with the earth. But they who have kept a stone in water for a long time, and find the same increas'd in bigness, will confute that opinion by this experiment; as also the experience of Miners doth, who having exhausted a Mine of its Metal find more in it after some years; and when they discover Mines, as yet imperfect, they cover the same again with earth, and after some space of time find them fit to be wrought upon, and, as it were, arriv'd to their maturity. This is also verifi'd by that Chymical operation, call'd vegetable Gold; and pieces of Cinnabar (or Quick-silver mingled with Sulphur) melted and put amongst the filings of Silver, being set over a furnace in a well luted Vessel produceth pure Silver, though of less profit then curiosity. For this visible artifice seems to prove the invisible one of nature, according to the opinion of Philosophers, who hold that all Metals are made of Quick-silver and Sulphur. So that we must not seek other causes of their generation and increasing then a new accession of that matter, either gliding along the veins of the earth, or reduc'd first into vapour by heat, and then condens'd by cold.

The Second said, That he was of *Cardan's* opinion who assigns a particular vegetative soul to all Minerals as well as to all Plants, whereunto they have great resemblance, not only in that they have some virtues and faculties alike (yea far more excellent) which cannot come but from a principle of life (since action is the indication of life) but also because they grow according to all their dimensions, as Plants do; have a conformation and configuration, which is common to Plants with them; attract, retain and concoct the nourishment which they receive from the earth by their veins and passages, and have also an expulsive faculty which is not in Plants, casting forth their dross, and exhaling their superfluous vapours. They have also roots and barks as Trees have; their substance is of parts organical, and really dissimilar, though in appearance some of them seem to be similar and homogeneous; and Lead, out of which are extracted Salt or Sugar, Quick-silver and Sulphur, is no more a similar body then Ebony, Box, and Milk, out of which such different substances are drawn.

The Third said, That before we can know whether Minerals live, we must first understand how life is caus'd in man, who is to be as the rule of all living things. It consists but in one sole action, to wit, that of Heat upon Humidity, which it rarefies and subtilizes, causing the same to ascend by little and little out of the intestines through the Mesentery to the Liver, Heart and Brain; in each of which it casting off its excrementitious parts, it acquires a new perfection, the utmost in the Brain, where it becomes a very thin spirit capable of receiving any form, even that



that of light, as appears by the internal splendor of our sight, and that brightness which is sometimes seen outwardly upon some Bodies. In Plants are found the like cavities destinated to receive and prepare their nourishment which heat attracts into them; and their knots are so many repositories, wherein that heat is re-united and takes new strength, till being arriv'd at the top of the Plant, according to the rectitude of the fibres, it circulates the matter so carried up that it spreads into branches, leaves and fruit. For as humidity is of it self immoveable, and incapable of any action, so being accompani'd with heat it moves every way; and there is no need of admitting an attractive faculty in each part, since it is carried thereunto sufficiently of it self. Natural heat indeed drives it upwards, but all unusual heat makes it break out collaterally, as is seen in sweat; for no eruption of humidity is caus'd but by the excess of some strange heat, not proper or natural. Now we may observe these tokens of life in the production of Minerals; their vaporous matter being first sublim'd and purifi'd by heat, and then incorporated with themselves. But because all Natures works are occult, and the instrument she uses (to wit, natural heat) is imperceptible, 'tis no wonder if it be hard to know truly how Minerals hid in the earth grow, since we are ignorant how the accretion of Plants expos'd to our view is made; we perceive them to have grown, but not to grow; as the shadow on the Dial is observ'd to have gone its round, yet appears not to move at all. Nevertheless, the Arborists would have us except the Plant of Aloes out of this number, whose flower and trunk at a certain time shoot forth so high, and so speedily, that the motion thereof is perceptible to the eye.

The Fourth said, That the generation of some Minerals is effected by heat, and of others by cold; the former, by coction, and the latter by concretion or co-agulation; which two agents are discover'd by the dissolution of Metals: For such as are made by cold are melted by its contrary, Heat; as Lead, Silver, and other Metals; and those which are made by heat, dissolve in water, as all Salts; provided, neither the one nor the other be so compact and close that they admit not the qualities of their contraries; for which reason Glass which is concocted by fire is not dissolv'd in water; and the Diamond, Marble, and some other stones, congealed by cold, are not melted by fire. But their accretion is not made by any vital principle, but only by a new apposition of matter. Moreover, they have no sign of inward life, as nutrition, equal and uniform augmentation in all their parts (which should be distinct and organiz'd) certain constant terms and limits of magnitude, and resemblance of figure and conformation, both internal, and external between all individuals of the same species. For Minerals having no cavities cannot receive aliment inwardly. They grow as long as matter is supply'd to them, and that inequally. Their figure is indeter-



indeterminate and various, according to the casual application of their matter in the veins of the earth; and their parts are all alike. The barks, roots, and veins attributed to them have nothing but the shape of those things, not the use, no more than the paps of men. Nor do they bear flowers, fruits or seeds, nor produce or multiply themselves any other way, as Plants do.

The Fifth said, We give appellations or names to things from their external form, because their internal is unknown to us. Now divers Minerals have the same proportion that Trees have; and the cause why Mines are larger, is because they are not agitated by winds, nor in danger of falling, as Trees are, to whose magnitude, for that reason, Nature hath been constrain'd to set bounds; and although Minerals grow much more than they, yet it do's not follow that they have not certain terms prefix'd to their quantity. If they bear neither flowers nor fruits, 'tis so too with some Plants upon which the Sun shines not, as the Capillary Herbs which grow in the bottom of Wells, and some others also, as Fern. And the case is the same with this common Mother the Earth, as with Nurses; for as when they become with child the infant whom they suckle dyes; so where there are Mines under the Earth, nothing grows upon the surface. The decaying and old age of stones is also a sign of their being vital, as appears by the Load-stone, which loseth its strength in time, and needs filings of Iron to preserve its life. All which being joyn'd to what *Scaliger* relates, that in *Hungary* there are threds of gold issuing out the earth, after the manner of Plants, perswades me that Minerals have a particular soul besides that universal spirit which informs the world and its parts; but this soul is as much inferior to that of Plants, as the vegetative is below the sensitive.

Upon the second Point, it was said, Sciences are the goods of the mind, and the riches of the soul. And as 'tis not sufficient to happiness to have riches, but the possessor must be able to preserve and enjoy them: so 'tis not enough to have a great stock of notions, but they must be brought into the light and put in practice. Now this is done better by him who understands but one single thing perfectly, then by him who knows a little of all, ordinarily with confusion, which is the mother of ignorance. This is what they call knowing a little of every thing: and of all, nothing. For being our mind is terminated, the object of its knowledge ought to be so too; whence it is that we cannot think of two things, at the same time. Thus, of all the world mine eye and my mind can see but one thing at one time, one single Tree in a Forest, one Branch in a whole Tree; yea, perfectly but one single Leaf in a whole Branch: the exception of the mind, like that of the eye, being made by a direct line, which hath but one sole point of incidence. And the least

M m

thing

II.  
Whether it  
be best to  
know a little  
of every  
thing, or one  
thing per-  
fectly.



thing, yea the least part is sufficient to afford employment to the humane soul. Hence the consideration of a Fly detain'd *Lucian* so long; that of a Pismire exercis'd the wit of a Philosopher three and forty years. That of the As sufficiently busi'd *Apuleius*. *Chrysippus* the Physitian writ an entire volumn of the Colewort; *Marcion* and *Diocles* of the Turnep and Rape; *Phanias*, of the Nettle; King *Juba*, of *Euphorbium*; *Democritus*, of the number of Four; and *Messala* made a volumn upon each Letter. Even the Flea hath afforded more matter to sundry good wits of this age, then they found how to dispose of. How then can man, who is ignorant of the vilest things, be sufficient to know all?

The Second said, If the word knowledge be taken strictly for a true knowledge by the proper causes, 'tis better to know a little of every thing then one thing alone. If for a superficial knowledge, 'tis better to know one thing solidly then all superficially; that is, a little well, then all badly. For 'tis not barely by action that the Faculty is perfected, but by the goodness of the action. One shot directly in the mark is better then a hundred thousand beside it; one single Science which produces truth is more valuable then all others which afford onely likelihoods, (and all conjectural knowledge is no more) wherewith nevertheless almost all our Sciences overflow; out of which were all that is superfluous extracted, it would be hard to find in each of them enough to make a good Chapter: as appears by the small number of Demonstrations which can be made in any Science; yet those are the onely instruments of knowledge. Hence it is, that he who applyes himself to many Sciences never succeeds well in them, but loses himself in their Labyrinth; for the Understanding can do but one thing well, no more then the Will can. Friendship divided, is less; as a River which hath more then one Channel, is less rapid; and he that hunts two hares catches none. Of this we have many instances in Nature, which enables the Organs to perform but one action, the Eye to see, and the Ear to hear; and one tree brings forth but one kind of fruit. In well govern'd Families each officer discharges but one employment; In States well order'd no Artificer exercises above one Trade, whereas in Villages one work-man undertakes five or six Mysteries, and performs none well; like the knife or sword of *Delphos*, spoken of by *Aristotle*, which serv'd to all uses, but was good for none.

The Third said, The Understanding being a most subtile fire, a Spirit alwayes indefatigably moving, and which hath receiv'd all things for its portion; 'tis too great injustice to retrench its inheritance, to clip its wings, and confine it to one object; as they would do who would apply it but to one single thing, not considering that the more fuel you supply to this fire, the more it encreases, & is able to devour. Moreover, it hath a natural desire to know every thing; & to go about to confine it to one, were  
to



to limit the conquests of *Alexander* to an acre of Land. And as every Faculty knows its object in its whole latitude, and according to all its species and differences; the Eye perceives not onely green and blew, but all visible, colour'd, and luminous things; the Touch feels cold, hot, soft, hard things, and all the tactile qualities; the Phancy is carry'd to every sensible good, the Will loves all that is good and convenient: In like manner the Understanding, which is the principal Faculty of Man; and though it be most simple, yet comprehends all things (as the Triangle, the first and simplest of all figures, contains them all in it self, since they may be resolv'd into, and proved by it) ought not to be in worse condition then the others its inferiors, but must be carry'd towards its object in the whole extent thereof, that is, know it. If sundry things cannot be conceiv'd at a time, that hinders not but they may successively. Besides that the variety of objects recreates the Faculties as much as the repetition of one and the same thing tires, enervates, and dulls it.

The Fourth said, All things desire good, but not all goods. So, though Men be naturally desirous of knowing, yet they have a particular inclination to know one thing rather than another, infus'd into every one for the preservation of Sciences. Which end of Nature would be frustrated, should we run to the inquiry of new Sciences before we have attain'd the first, considering the brevity of our lives compar'd with the amplitude of Arts. Wherefore it were more expedient not onely that every one apply'd himself to that whereunto he finds himself inclin'd, but that there were as many distinct Artists as the Art hath principal parts; and that, for example, as Physick hath been commodiously divided between Physitians, Chirurgeons, and Apothecaries, which were anciently but one, so their functions were again subdivided. Because by this means every one of them would attain a more perfect knowledge of his Subject. Therefore *Plato* instead of cultivating, as he could have done, the spacious field of Philosophy, apply'd himself onely to Metaphysicks, *Socrates* to Morality, *Democritus* to Natural Philosophy, *Archimedes* to the Mathematicks. For they who would possess all the parts of a Science at once are like those who should try to pluck off a Horse's tail at one pull, instead of doing it hair by hair. Whence it was said of *Erasmus*, that he had been greater, if he had been contented to be less.

The Fifth said, That determination of the question depends upon the capacity of wits. For as in a poor little Mansion where there is not room enough to place all necessary moveables, 'twere impertinence to desire to place such as serve onely for luxury and ornament: So mean wits, yea, the indifferent, such as most are, take safer course in keeping to those few things of which they have most use, then if they embrac'd too many, for fear of verifying the Proverb, *He that grasps too much holds nothing*. But there are some Heroick Spirits, capable of every



thing, and of which, comparing them to others, that may be said which a Father once said of the different degrees of bliss, comparing the Souls of the blessed to vessels of several sizes, all fill'd from the same Fountain. There are little vulgar capacities, which the initiation of a Science, or the Etymologie of a word satisfies, and they never get beyond the Apprentiship of the least trade. Others are so transcendent, that they go, like the Sun, into all corners of the world without being wearied or contaminated with several objects. Nothing tires them but rest. They draw every thing to themselves, become Masters of what ever they undertake, and reduce all Sciences to their principal study. Thus, the Divine, the Physician, and the Lawyer, will make use of History : The first, to enrich a Sermon, or raise a Soul dejected by the consideration of its miseries, whereunto it believes none equal : The Second, to divert his Patient, whose Mind has no less need of redress, then his body : The Third, to shew that the same judgement has been given in a parallel case. They will call in the demonstrations of the Mathematicks to back their own, and the experiments of other Arts to serve for examples and similitudes. To these, Nature, how vast soever it be, seems still too little, and they would complain upon occasion, like *Alexander*, that there were not worlds enough. Such were of old *Hippocrates* and *Aristotle* ; and in the time of our Fathers the Count of *Mirandula*, *Scaliger*, and some others, who though they writ and spoke of all things, did nevertheless excel in all. Besides, nothing can be known perfectly, without knowing a little of every thing, and this by reason of the Encyclopædie, or Circle of Arts ; as we cannot understand a particular map without having some knowledge of the general, and also of the neighbouring Countries.

---

### CONFERENCE XLV.

I. *Whether the Heavens be solid or liquid.*

II. *Whether it be harder to get  
then to preserve.*

I.  
*Whether the  
Heavens be  
solid or  
liquid.*

**W**Hen the proportion requisite to the necessary distance between the sense and its object fails either in excess or defect, there is no more credit to be given to Sense. That which we look upon too near, and which is apply'd upon the Eye, appears greater then ordinary, as that which is too remote seems very small, and diminishes commensurately to its distance. By which also the figure or shape of the object becomes chang'd to our apprehension ; and we are apt to mistake a square Tower to be round, one colour for another, nothing for a body, a tree for



for a living creature, a beast for a man, one face for another. Some things likewise deceive us near hand, as the curtain of *Timanthus*. But if we are abus'd in objects, which are terminated by an opaque surface, capable of bounding our view, and reflecting our visual rayes; the same happens, with more reason, in diaphanous and transparent bodies, as Light, Fire, Air, Water, Glass, and every thing of that nature. The two last especially, have such conformity that they have divers effects alike, as to serve instead of burning-glasses to recollect the Sun-beams, and represent the species which are opposite to them. For, fill a viol with water, and set it in the Sun, his beams will produce the same effect with it as with a burning-glass. Now by reason of the possibility that our Sight may be mistaken, we are many times forc'd to have recourse to some other Sense, as to that of Touching; to the end the one may be back'd with the testimony of the other. But this cannot be practis'd in the present Subject; and therefore I conceive that the Heavens, taken for the Celestial Orbes, and not for the Air, nor the third or Empyrreal Heaven, are neither solid nor liquid; because solidity is an effect of dryness, and liquidity of moisture, which are Elementary Qualities; but the Heavens not being compos'd of the Elements cannot partake of their qualities. But as they constitute a Fifth Essence, of no affinity with that of the Four Elements, so the accidents which belong to them are wholly different from ours, and can no more be conceiv'd then those of glorifi'd bodies; which if you imagine solid, you can never think how they should bow the knee, or exercise any the like function. If they be imagin'd rare and liquid, and consequently penetrable, they will seem to us divisible; qualities contrary to their immortality. Wherefore I conclude, that the things of Heaven are not to be measur'd by the standard of those on Earth.

The Second said, That when things are remote from our external Senses, we must joyn the internal in their disquisition; now reason requires that there be some utmost solid surface, serving as a boundary and limit to the Elements; otherwise the same thing would happen to the Air or the Elementary Fire, (if there be any such above the Air) that doth to the Water and the Earth, which exhale and evaporate their more rare and subtile parts into the Air; for so would the Air exhale its vapours into the Heavens; and the Fire (whose Nature is alwayes to mount directly upwards, till the occurse of some solid body checks its course and make it circulate) would mingle it self with the substance of the Heavens; which by this means would be no longer pure, and free from corruption, nor consequently eternal; yea, it might happen that such Meteors as should be form'd in the Heavens would disorder the motions of the Planets which we behold so regular. And besides, 'tis not possible that the Stars of the Firmament should not have come nearer one another in these 6000. years; and the Planets have been so exact in their wandrings, unless the Heavens were solid. The



The Third said, That because the weakness of our reasoning cannot conceive how the creatures obey the Creator, otherwise then by such wayes as Artificers use, who fasten nails in wheels to make their motion regular; therefore Men phancy the like in Heaven. As if it had not been as easy to God to have appointed a Law to the Stars to move regulary in a liquid space, (as fishes do in the water) yea, in a Vacuum, (if there were any in Nature) as to have riveted and fix'd them to some solid body. For 'tis true; we cannot make a durable Sphere but of solid matter. But if Children make airy spheres, or balls with water and soap, could not God, who is an infinitely more excellent work-man, make some of a more subtile matter? Moreover, The supposition of liquid Heavens serves better to interpret these openings of Heaven mention'd in the Scripture, then if they be suppos'd solid. The melted brasse to which *Job* compares the Heavens, proves the contrary to what is usually inferr'd from it; for immediately after this comparison made by one of *Job*'s friends, God reproves him, and taxes his discourse of ignorance. Whereas it is said, that Heaven is God's throne, which is stable, and which God hath established in the Heavens; and also that it is called a Firmament, the same construction is to be made of these expressions as of that in the beginning of *Genesis*, where the Sun and the Moon are styl'd the two great Lights of Heaven, not because they are so in reality, but because they appear so. But that which to me seemes most conclusive for the liquidity of the Heavens, is, That Comets have been oftentimes observ'd above some Planets, which could not be, were the Heavens solid. Besides that all the Elements are terminated by themselves, and need no vessel to be contain'd in.

The Fourth said, If the matter of the Heavens were as firm as glass or crystal, or onely as water, our sight could no more perceive the Stars, then it doth things in the bottome of a deep water, how clear soever it be; for the visual rayes or species of things cannot penetrate so thick a medium. But although the Stars are exceedingly remote from us, yet our eyes discern their different magnitudes, colours, and motions, and distinguish such as twinkle from others. Besides, those who should behold the same Star from different places would perceive it of different magnitudes, as it happens to those who look upon the same body through water or glass, in regard of the diversity of the medium, which is thicker in one place then in another. Nor is it harder to conceive how the Stars hang in the Air, then to imagine the same of the Terr-aqueous Globe.

The Fifth said, Liquid is defin'd that which is hardly contain'd within its own bounds, and easily in those of another, (which is the true definition of Liquid, and not of Humid; since Quick-silver, Lead, and all metals melted, are difficultly contain'd in their own bounds, and easily in those of another; yet are not humid) the Heaven must be solid and not liquid; for it

is



is contain'd within its own bounds; yea, according to the Scripture, it upholds the Supercelestial Waters.

The Sixth said, The great diversity found in the motions of the Celestial Bodies, and especially in the Planets, makes very much for the Fluidity of the Heavens. For Astronomers observing that the Planets not onely go from East to West by their diurnal motion, common to all the celestial bodies, but have a particular one of their own, after a sort contrary to the former, which makes them stray from their situation, whereunto they return onely at a certain time; therefore they will have them to be turn'd about by a Heaven, term'd by them, *Primum Mobile*, but add that each of the Planets hath a sphere of its own, which is the cause of its second motion: Moreover, observing the Planets to be sometimes nearer, and sometimes further off from the Earth; therefore they assign'd them another sphere, call'd an Excentrick. But what needs this multiplication of spheres, when as it may reasonably be affirm'd, that God hath appointed to every Star the course which it is to observe, (as he hath assign'd to every thing its action) what ever variety be found in Planetary bodies, there being more in other Bodies. If it be said, That the wonder lies in their Regularity, I answer, There is nothing here below but ha's and keeps a rule. Whence Monsters are so much wonder'd at. Nor is there less wonder in the natural instincts of things, and all their various operations which they alwayes inviolably observe, then in Uniformity, which hath much more ease in it; as it is a more facile thing for a stone to move alwayes downwards, then for an Animal to move according to all the diversities of place and exercise, so many several actions.

The Seventh said, The matter of the Heavens (if they have any) is, according to *Empedocles*, a most pure and subtile Air; and that of the Stars, is Light. Wherefore they cannot be either solid or liquid. Moreover, the Centre of the World is most compact, and it grows more and more subtile still towards the Circumference, which therefore must be immaterial, as Light is; Now the Stars are onely the thicker parts of their Orbes, like the knots in a Tree; which density renders them visible to us, multiplying and fortifying the degrees of Light by this union; as, on the contrary, the rarity of the intermediate space between the Stars doth not terminate or bound our sight, either because the species which it sends forth are not strong enough to act upon the Eye, and cause perception (which is the reason why we see not the Elementary Fire, though we see the same Fire when it comes to be united and condensed into an igneous meteor, or into our culinary flames. The Heavens therefore may be more or less dense, but not solid in that sence as we attribute solidity to Crystal, Diamonds, or other hard bodies which resist the touch. But indeed we may call them so, if we take the word solid, for that which is fill'd with it self, and not  
with



with any other intermix'd thing) all whose parts are of the same nature; according to which signification, not onely the Water, but the Air, yea, the Light it self, if it be material, may be said to be solid.

II.  
Whether is it  
easier to get  
or to keep.

Upon the Second Point it was said, That the difficulty of acquiring and preserving is equal. The reason is, because all the world is eager to get, and therefore 'tis a trouble to a Man to keep what he hath. For the profit of one not arising without the damage of another, (as there is no generation without corruption) nothing accrues to one but what the other loses. Wherefore the striving of every one to get, shews the pains there is in gaining something from another; and again, being every one gapes after another's goods, it is difficult to preserve the same; as a beast after which all the world is in chase, can hardly save it self. Hence *Diogenes* said, that Gold might well be pale, since every one layes plots to entrap it.

The Second said, That as for the guarding of a Place it is requisite that the same be fortifi'd on all sides, whereas there needs but one breach, or one gate open'd, for the surprizing of it; so it seems there is more pains requir'd to keep then to get. Besides, the ways of losing and spending are almost infinite, and far easier then those of gaining or acquiring, which are very few. To get, 'tis sufficient to have strength (common to Men and Beasts) but to preserve, there needs Prudence, (not onely peculiar to Man, but with which very few are well provided.) This is prov'd also by Nature, which acquires new formes by one single action, but cannot preserve the same without many. For Conservation is the duration of the existence of a thing, and this duration a continual production of it, and consequently more difficult then Acquisition, which is dispatch'd by one simple generation.

The Third said, States and Families are increas'd by acquiring, and upheld by preserving what they acquir'd. Both the one and the other are very difficult, as Experience teaches us; for we see but few Families and States advanc'd; and, on the contrary, many others fall to decay. Nevertheless it seems more painful to get then to keep. For if he who possesses much is troubled to preserve it, he that hath nothing is much more troubled to get something; it being far easier for him who hath a stock already, not onely to preserve but increase it, then for him who hath nothing at all to become Master of any thing; as there is more of miracle in Creation then in Conservation of the Universe; and as 'tis harder to make leven out of nothing, then to make new paste with the leven which one hath already. Therefore the Latin verse tells *Æmilian*, that if he is poor, he will alwayes be so, because no body gives any thing but to the rich, as too many examples evidence.

The Fourth said, As 'tis the same virtue in the Load-stone which retains, and which attracts the Iron, and that which preserves



preserves is the same with that which produces; so to keep and to get, are but one and the same thing; since he who by his good management preserves his goods, continually makes them his own. But as the harder a weight is to be lifted up, 'tis the harder to be held up; so the more labour there is in acquiring, the more there is also in preserving the thing acquir'd. Hence those who have undergone hard toyle to get an estate are more busied in keeping it, then they who receive one from another without pains. And upon this account 'tis that *Aristotle* saith Benefactors love those they do good to, better then they are be- lov'd by them, because 'tis more pains to oblige then to be ob- lig'd; and women love and preserve their children so tenderly and dearly, because of the pain which they undergo in bringing them forth. Yet because this Sex is designed to look after the goods of the family, and men to procure them, it may seem thereby that 'tis harder to get then to keep; otherwise, the strongest should not have the more difficult task, as equity and justice require.

The Fifth said, The Question is resolv'd chiefly by considering the diversity of times, inclinations, capacities, and things. In Seditions or Wars 'tis hard for a man to keep his own, the stronger dispossessing the weaker, and the Laws being little heard amidst the clashing of Arms. In Peace, when justice secures every man's possession, 'tis easier to preserve. In Youth acquisition is more facile, yet keeping is not so easily practis'd then as in old age. The Prodigal does violence to himself, when he finds a necessity of saving, and thinks nothing more difficult. The Slothful man knows not how to get any thing. The Covetous finds difficulty in both, but the greatest in keep- ing; and therefore apprehending no security amongst men, af- ter having experienc'd the trouble of securing his wealth by the honesty of others, from the frauds of Debtors, the subtlety of Lawyers, the violence of Thieves, he is oftentimes reduc'd to hide his Treasure under ground. Persons of courage and great vivacity of spirit, but defective in discretion, are more in pain to keep then to get. As it was said of *Alexander*, *Hanibal*, and many other great Captains, that they knew better how to over- come then to make use of their Victory. And indeed these two qualities seem inconsistent; for Conquerors have almost always been so magnificent as that they have given away with one hand what they acquir'd with the other, reserving nothing to themselves but hope and glory; whereas preserving seems pro- per to the Magistrate and civil Judge. Lastly, some things are acquir'd with great facility, but difficulty kept, as Friendship, which oftentime is gotten in an instant, but more difficult, yea almost impossible to continue. The favours of Lovers are or- dinary of this rank, being more easily gotten then kept. On the contrary, Knowledge is kept with more ease then it is gain'd, because ignorance must first be remov'd out of the Understand-



ing, and this is a matter of difficulty; whereas to preserve knowledge, the species need only be stirr'd up again, and the more they are excited they become the more strong and vigorous; contrary to other things which perish in the use. For the same actions which produc'd the habit preserve it, but with much less difficulty then it was acquir'd. The same may be said of Vertues; for 'tis harder for a bad man to become good then for one of this latter sort to continue in the exercises of vertue. As for the goods of the Body, Beauty, Strength and Health; as they are frail, so they are easie to lose; the Jaundise, the small Pox, the least disorder in our humours are sufficient to alter or destroy them utterly. The goods of Fortune (so call'd because they depend upon so incertain and mutable a cause, that he that hath them can scarce call himself master of them) as riches and honours, are hard to get and easie to lose, inasmuch as a man must perform an infinite number of vertuous actions to obtain promotion, but a single bad action is enough to ruine him. It having pleas'd God, in order to keep every one within their duty, that in this world as well as in the other our felicity should be wrought out with fear and trembling.

## CONFERENCE XLVI.

### I. Of Vacuity. II. Of the extravagance of Women.

#### I. Of Vacuum.

THE Vulgar call that *empty* which is not fill'd with some visible body. But the Philosophers give this name to a place destitute of all corporeity whatsoever, yet capable of being fill'd; at least, if any such can be in nature. For it cannot be understood of those imaginary spaces beyond the heavens (which, *Pythagoras* said, serv'd for their respiration) whereof he conceiv'd they stood in need, as animals do. *Democritus* and *Leucippus* admitted a two-fold *Vacuum*; one in the Air, serving for local motion; the other in all mixt Bodies, requisite to the internal growth, and also to the lightness of things; alledging that according as their atomes are closely or loosely connected, and of various figures, so bodies are light or heavy. But these Opinions being antiquated, I adhere to the common one, which admits no *vacuum* at all.

The Second said, Since Nature abhors *vacuum*, there must be such a thing; for of two contraries the one supposes the other. And indeed 'tis impossible for any local motion, condensation, or rarefaction, and inward augmentation, to be made without admitting vacuity. For, as for local motion, when a body removes out of a place, that into which it enters is either full or empty:



empty : not full, for then it could not receive a new body without penetration of dimensions (which nature cannot suffer) therefore it must be empty. For this reason *Melissus* affirm'd that all things are immoveable. For being unable to comprehend how motion could be made without, and unwilling to admit vacuity, therefore he deny'd both. To say that bodies give way one to another, is to increase the difficulty in stead of resolving it ; for the body which gives place to another must displace a third, and this a fourth, and so to infinity. So that, to avoid admitting little pores or interstices in the air, into which it may be compacted, we must affirm that the air of our Antipodes is agitated at every the least motion of a finger here. Moreover, *Vacuum* is prov'd by condensation and rarefaction. For the former being made, when a body is reduc'd into a lesser extent, and its parts approach neerer one another without loss of any ; either these parts penetrate one another, or else there was some void space, which is possess'd by themselves when they are thrust together : seeing, if they had been so contiguous as that there were not any empty pores between them, they could not have come closer together. Likewise, rarefaction being caus'd when the parts recede one from another, if no other body interpose, there must needs be a *vacuum* between the parts ; or else they must have been one within another. If it be said, that proportionably as one thing is condens'd in one place, another is as much raref'd somewhere else, to fill up the *vacuum*, and so on the contrary ; this is harder to be conceiv'd than a *vacuum*. Lastly, accretion or growth, which is caus'd by the reception of aliment in the body, could not be made, if there were not some void passages to receive this aliment. And, to conclude, experience shews us, that a pail of water will receive its own measure of ashes or lime which it could not do, if there were no vacuity.

The Third said, That every thing affects unity, not only because God who is the universal cause of all is one, and most simple ; and every thing ought to be like its cause ; but for that all things find their good and conservation in unity, as they do their ruine in dis-union. Wherefore every thing in the world is so united that there is not any empty space between two ; and contiguity is as necessary in the parts of the world as continuity in those of a living creature. For if there were a *Vacuum* in the world, the Heavens could not transmit their influences into the Elements and their compounds, for the preservation of which the same are absolutely necessary ; considering that whatever acts upon a distant thing must do it by some *medium* uniting the agent and the patient.

The Fourth said, Since Nature offers violence to her self, to prevent inanity, and all things quit their particular interest for that of the publick, undoubtedly, there is no such thing as *vacuum* in Nature. For we see that she makes heavy things to



ascend, light things to descend, and breaks the solideſt and ſtrongeſt things without any external violence, only to avoid the inconvenience of vacuity. If bellows be compr'eſs'd and the holes ſtop'd, no humane force can expand them without breaking; a bottle (of what material ſoever) fill'd with boiling water and ſtop'd, and put into cold, immediately flies in pieces. You cannot draw Wine out of a veſſel, unleſs you give entrance to the air at the bung-hole. A veſſel being full of heated air, and its oriſce apply'd to the water, ſucks the ſame upwards. A Cupping-glaſs, when the heated and ſubtile air in it becomes condens'd and takes up leſs room, attracts the fleſh into it ſelf. Syphons and Pumps, by which the water is made to aſcend higher then its ſource, are founded wholly upon this eſchewing of vacuity. Our own bodies alſo afford us an inſtance, for the aliment could not be aſſimilated in each part without the ſuction and attraction which is made of it to ſupply the place of what is conſum'd by exerciſe or heat, otherwiſe the blood and nourishment would tend only downwards by their own weight. And what makes the effects of blood-letting and purgation ſo ſenſible; but this very flight of *Vacuum*?

The Fifth ſaid, A notable vacuity and of great extent cannot be without miracle, but ſome ſmall interſpers'd inanities may be between the particles of the Elements and Compounds, like the pores of our bodies: for Nature abhors the former, and can do nothing without the latter; it being impoſſible for Qualities to be tranſmitted to any ſubject through a great *vacuum*, which would hinder the perception of our ſenſes, and the fire it ſelf from heating at the leaſt diſtance. There could be no breathing in it, Birds could not fly in it; in brief, no action could be exerciſ'd in it but thoſe whereof the principle is in the thing it ſelf, and which need no *medium*, as local motion, which would be more eaſily made, becauſe there would be no reſiſtance.

The Sixth ſaid, Nature doth what ſhe can to hinder a *vacuum*, yet ſuffers one when ſhe is forc'd to it. For if you ſuck out all the air out of a bottle, then ſtop it exactly, and having put it under water with the mouth downwards, open it again, the water will immediately aſcend to fill the vacuity left by the exſuction of the air. And if with a Syringe you force air into a veſſel ſtrong enough to endure ſuch violence, when the pores of the air which were empty before come to be fill'd, it will of its own accord drive out the water very impetuoſly which was put firſt into it. Likewise, though the air naturally keep up above the water: yet by-encloſing it in ſome ſort of veſſel you may violently make it continue under the water.

## II.

Of the capricious or extravagant humours of women.

Upon the ſecond Point, it was ſaid, It is not here pronounc'd that all women are capricious; but only the reaſon inquir'd of thoſe that are ſuch, and why they are more ſo then men. To alledge



alledge the difference of souls, and suppose that as there is an order in the Celestial Hierarchies, whereby the Archangels are plac'd above Angels, so the spirits of men are more perfect than those of women; were to fetch a reason too far off, and prove one obscure thing by another more so. Nor is the cause to be found in their bodies, taken in particular, for then the handsome would be free from this vice; the actions which borrow grace from their subject appearing to us of the same nature; and consequently their virtues would seem more perfect, and their defects more excusable; whereas, for the most part the fairest are the most culpable. We must therefore recur to the correspondence and proportion of the body and the soul. For sometimes a soul lights upon a body so well fram'd, and organs so commodious for the exercise of its faculties, that there seems more of a God than of a man in its actions (whence some persons of either Sex attract the admiration of all world:) On the contrary, other souls are so ill lodg'd that their actions have less of man than of brute. And because there's more women than men found, whose spirits are ill quarter'd, and faculties deprav'd; hence comes their capricious and peevish humour. For as melancholy persons, whose blood is more heavy, are with good reason accounted the more wise; so those whose blood and (consequently) spirits are more agile and moveable, must have a less degree of wisdom, and their minds sooner off the hooks. The irregular motions of the organ which distinguishes their Sex, and which is call'd an animal within an animal, many times have an influence in the business, and increase the mobility of the humours. Whence the health of their minds as well as that of their bodies many times suffers alteration. A woman fallen into a fit of the Mother becomes oftentimes enrag'd, weeps, laughs, and has such irregular motions as not only torment her body and mind, but also that of the Physician, to assign the true cause of them. Moreover, the manner of living whereunto the Laws and Customs subject women, contributes much to their defects. For leading a sedentary life, wherein they have always the same objects before their eyes, and their minds being not diverted by civil actions, as those of men are, they make a thousand reflections upon their present condition, comparing it with those whereof they account themselves worthy: this puts their modesty to the rack, and oftentimes carries them beyond the respect and bounds which they propos'd to themselves. Especially, if a woman of good wit sees her self marri'd to a weak husband, and is ambitious of shewing her self. Another judging her self to merit more than her rival, not knowing to whom to complain of her unhappiness, does every thing in despatch. And indeed they are the less culpable, inasmuch as they always have the principles of this vice within themselves, and frequently find occasions abroad.

The Second said, that the word *Caprichio* is us'd to signify the



the extravagant humour of most women, because there is no animal to which they more resemble than a Goat, whose motions are so irregular that *prendre la chevre* signifies to take snuffe without cause, and to change a resolution unexpectedly. For such as have search'd into the nature of this animal, find that its blood is so sharp, and spirits so ardent, that it is always in a Fever; and hence it is that being agitated with this heat which is natural to it it leaps as soon as it comes into the world. Now the cause of this temper is the conformation of the Brain, which they say is like that of a woman, the Ventricles of which being very little are easily fill'd with sharp and biting vapours, which cannot evaporate (as *Aristotle* affirms) because their Sutures are closer than those of men: those vapours prick the Nerves and Membranes, and so cause those extraordinary and capricious motions. Hence it is, that women are more subject to the Meagrim and other diseases of the head, than men. And if those that sell a Goat never warrant it sound as they do other animals, there is no less excuse in reference to women. Which caus'd the Emperour *Aurelius* to say, that his Father in law *Antoninus* who had done so much good to others had done him mischief enough in giving him his daughter, because he found so much bone to pick in a little flesh. Moreover, the Naturalists say that the Goat is an enemy to the Olive-tree especially, which is a symbol of peace, whereunto women are not over-well affected. For, not to mention the first divorce which woman caus'd between God and man by her lickorishness; her talking, her ambition, her luxury, her obstinacy, and other vices, are the most common causes of all the quarrels which arise in families, and in civil life. If you would have a troop of Goats pass over any difficult place you need force but one to do it, and all the rest will follow. So women are naturally envious, and no sooner see a new fashion but they must follow it. And Gard'ners compare women and girles to a flock of Goats, who roam and browse incessantly, holding nothing inaccessible to their curiosity. There is but one considerable difference between them; the Goat wears horns, and the woman makes others wear them.

The Third said, There is more correspondence between a woman and a Mule, than between a woman and a Goat: for (leaving the Etymology of *Mulier* to Grammarians) the Mule is the most teasty and capricious of all beasts, fearing the shadow of a man or a Tree overturn'd more than the spur of the rider. So a woman fears every thing but what she ought to fear. The obstinacy of the Mule, which is so great that it has grown into a Proverb, is inseparable from the whole Sex, most of them being gifted with a spirit of contradiction. Mules delight to go in companies; so do women; the bells and muzzles of the one have some correspondence with the earrings and masks of the other; and both love priority. The more quiet you allow a Mule,



Mule, it becomes the more resty ; so women become more vicious in idleness ; neither of them willingly admits the bridle between their teeth. The Mule is so untoward that it kicks in the night time while 'tis asleep ; so women are oftner laid then quiet. Lastly, the Mule that hath seem'd most tractable all its time, one day or other pays his Master with a kick ; and the woman that has seem'd most discreet, at one time or other commits some notorious folly.

The Fourth said, That those who invented the little Medals representing the upper part of a woman, and the lower of a Mule, commend this Sex whilst they think to blame it. For there is nothing more healthy, strong, patient of hunger, and the injuries of seasons, or that carries more, and is more serviceable, than a Mule. Nature shews that she is not satisfi'd with her other productions whilst she makes other animals propagate by generation ; but when she has made a Mule, she stops there, as having found what she sought. Now if certain actions of women seem full of perverseness and *capricio* to some, possibly others will account them to proceed from vivacity of spirit, and greatness of courage. And as the Poet, in great commendation of his black Mistress, chanted her cheeks of Jet, and bosom of Ebony ; so whatever some people's mistake may say to the contrary, the most capricious woman is the most becoming. Nor is this humour unprofitable to them ; for as people are not forward to provoke a Mule for fear of kicks, so we are more shy of women than otherwise we should be, for fear of capricioes, well understanding the difference which the Proverb puts between the van of the one, and the rear of the other. Yet some hold that this capriciousness of women follows the Moon no less than their menstruosities do. Others, that the flower of beans contributes very much to it.

The Fifth said, That if credit is to be given to experience, *Solomon* who had experience of a thousand women, compares an ill capricious woman to a Tygress and a Lyonsess. Such were *Medea*, *Xantippe*, and many others. Moreover, the Poets say that the Gods intending to punish *Prometheus* for having stoln the celestial fire, gave him a wife. And when Satan afflicted *Job* he depriv'd him of his flocks, of his houses, and of his children, but had a care not to take his wife from him, knowing that this was the onely way to make him desperate, as it would have done without God's special grace. The Rabbins say, three sorts of persons were exempted from publick charges, and could not be call'd into judgement, to wit, the Poor, the Nephritick, and he that had a bad wife, because they had business enough at home without needing any abroad. The Laws likewise exempted new marry'd men from going to the wars the first year of their marriage, allowing them this time, which is the roughest and most important, to repress their quarrellsomeness, and reduce their



their fierce Spouses to duty. Which if the Husbands could not effect, a little bill of Divorce (appointed by God, and the Laws for putting an end to the poor Man's miseries) did the business. Though the *Chaldeans* us'd not so much formality, but onely extinguish'd the domestick fire which the Priest kindled at the marriage. Yet the privilege was not reciprocal, neither Divine nor Humane Laws having ever allow'd women to relinquish their Husbands; for then, being as capricious and inconstant as they are, they would have chang'd every day. For the same reason the Laws have alwayes prohibited to women the administration of publick affairs. And the Religion of the Mahumetan Arabians assigns them a Paradise apart; because (say they) if the women should come into that of the men they would disturb all the Feast.

## CONFERENCE XLVII.

### I. *Of the Virtue of Numbers.* II. *Of the Visible Species.*

#### I. *Of the Virtue of Numbers.*

**T**He Mind of Man resembles those who make the point of their tools so small that they spoil them with too much sharpening; and in the contemplation of natural causes there is more then enough to satisfy his desire of knowledge, were it not that he will attempt every thing. Hence it is that the causes of different effects here below are sought in things the most remote, and no otherwise appertaining to them then that as accidents and circumstances. Of these accidents some have action, as Quality; others have none, as Quantity; under which are comprehended Number, Figure, Lines, Surface, and its other species; which are consider'd either in some matter, or else abstracted from it; in the former of these wayes, they have some virtue in regard of their matter, but not in the latter. An Army of fifty thousand Men is potent, but the *number* of fifty thousand can do nothing, yea, is nothing, if taken abstractedly. Wherefore as reasonable as it is to seek the virtues of simple and compound bodies in their qualities, and to say, *e. g.* that Pepper bites and alters the Tongue, because it is hot and dry; so absurd it seemes to think that five or seven leaves of Sage apply'd to the Wrist have more virtue then six or eight.

The Second said, Nothing includes more wonders in it self then Number; and if our Reason cannot penetrate their cause, they ought to be the more esteem'd for being unknown. This is the universal opinion of all Antiquity, both Jewish and Pagan, which otherwise would not have made so much adoe with them. Yea, there's [divine] authority for it, contain'd in the eleventh Chapter



Chapter of Wisdom, *God made all things in number, weight, and measure.* Experience justifies their Energy, teaching us that certain numbers are to be observ'd in cases where we would have the like effects, which possibly is the cause why the operations of one and the same remedy are found so frequently different. We see Nature so religious in this observation, in all her works, that she never produces an Animal, but the proportion of seeds is adjusted most exactly; that in Plants, their grains and all other parts have the same taste, colour, and virtue, (whence it is that simple medicaments are always more certain than compound) because Nature either produces them not at all, or makes them with the same number, weight, and measure of matter and qualities. 'Tis through the virtue of number that such a Plant, as *Coloquintida*, is mortal when it grows alone; and medicinal, when many of them grow together.

The Third said, The Pythagoreans and Platonists ascrib'd so great power to numbers, that they thought all things were compos'd of them, and more or less active according to their several proportion. Of which they made four sorts. First the Poetical, or Musical, the virtue whereof is such, that it gave occasion to the Fable of *Orpheus*, who is said to have drawn even beasts, trees, and rocks, by the harmonious sound of his Harp. 'Twas by the cadence of the like numbers that *David* chas'd away *Saul's* evil spirit; and Poetry, which differs from Prose onely by its numbers, hence derives the power it hath over mens souls. The Second sort is the Natural, and is found in the composition of all mixt bodies. The Third is Rational, peculiar to Man, whose soul they term'd a moving number, the connexion whereof with the body they said, continu'd so long as the numbers which link'd them remain'd united together. The Fourth Divine, upon which and the Natural the Cabalists and Magicians have founded their profoundest secrets, and *Agrippa* his Occult Philosophy. But above all others, they particularly esteem'd the *odd* number, styling it perfect and Masculine; as, on the contrary, the *even*, imperfect and Feminine. Indeed we observe that the Birth of Man happens, for the most part, in an odd moneth, to wit, the seventh or ninth; in the rest, the Infant seldome comes forth alive. Also most of the alterations of our bodies happen according to the septenary number; whence the number 83. call'd for this reason the grand Climacterical, is so greatly fear'd, because 'tis produc'd by seven multiply'd into nine. Physicians never appoint Pills in an even number. Good Crises always happen on an odd day; and he that loses his Ague at an even fit necessarily falls into a relapse. Which cannot be attributed to any thing but number. For such effects as are produc'd by the quality or quantity of the matter appear with it; and therefore if these caus'd the Crisis, it would not be wholly at once, but begin and proceed by degrees according to the augmentation of the matter; as fire is increas'd by new



wood cast upon it. But the motion of Crises is alwayes sudden, and many times against all appearance.

The Fourth said, As the beginning of all things is a most simple essence; so all Numbers spring from Unity, which is no Number of it self, but the beginning of Number. *Osellus* calls it the Symbol of Peace and Concord, because it is indivisible; and with the Philosophers, Unity, Verity, Goodness, and Essence, are one and the same thing. Whence it follows that the Binary is the first of all numbers, wherewith Nature is so highly delighted that she ha's exactly observ'd it in the structure of Man, the Organs of whose senses, and almost all his members, are double; and therefore 'tis also so carefully observ'd by Architects. But the Ternary, concerning which *Ausonius* writ an entire volumne, being the first odd number, is of more efficacy, it is competent to the Deity and his works; the world is distinguish'd into three Ages; there are three sorts of Souls in Nature, three Faculties in Man, and three principal parts in his Body: Which caus'd *Aristotle* to say, in his first Book *De Cælo*, Chapter 1. That all things are comprehended under this Number [ *Tria sunt Omnia.* ] The Quaternary, dedicated to *Mercury*, is the first even and square number, highly esteem'd by the Pythagoreans, because it contains the grand number of Ten, (for 1, 2, 3, 4, put together, make Ten;) and by the Jews, upon the Art of the Divine Tetragrammaton, or Name of four Letters. Moreover, there are four Elements, four Seasons, four Humours, four Ages, and four Cardinal Virtues. As for the Quinary, we see there are five most Simple Bodies in Nature, five Senses, and five Fingers on a Hand. The Senary, according to Saint *Jerome*, contains the mysterie of the Creatures, because it arises from the double proportion of the quaternary to the binary. Nevertheless the Septenary ha's been accounted the most mysterious of all; because 'tis compounded of the first odd number, and first even Square, namely, three and four. And 'tis held, that by virtue of this number, the seventh Son born of the same Mother, without any interposition of the other sex, hath a particular gift of doing cures. *Orpheus* so esteem'd the Octonary, that he swore onely by it and the Eight Deities, to wit, the four Elements, the Sun, the Moon, Light, and Darkness. This number was alwayes held for the Emblem of Justice, because 'tis the first Cube, and hath a most perfect equality in all its parts. The Novenary being compounded of three Triads, (the first odd and most perfect number) is also of great efficacy; whence the Heavens, the Muses, and the orders of Angels have been compriz'd in it. Lastly, the Denary, which is the first conjoyned number, includes all the preceding. By all which it appears, that there is some efficacy not onely in numbers in general, but also in every one in particular.

The Fifth said, That which is most considerable in number, is, that 'tis the most sensible exemplar of the Deity, of whom you cannot



not conceive so many perfections, but there will still remain more to be imagin'd; as you cannot add so many numbers together, but you may yet add more. This is peculiar to it, that there is a least number, to wit, two, but no greatest, because you may always assign a greater. Yet there's no number, how great soever, but may be expressed. For set down a thousand figures in a row, and as many below them, multiply the one by the other, the sand of the sea do's not equal this number. What will it be then, if you multiply the same again, which you may do as often as you please. Here writing will surpass speech; for you cannot count it. Its perfection is also manifest, in that the Philosophers knew not how to express the formes and essences of things better then by comparing them to numbers. For as every number is so perfect and complete a total in it self, that you cannot add or diminish any thing from it, and it remain the same number; so are the essences of things. Moreover, tis particular to Man; for he alone, amongst all Creatures, reasons, speaks, and computes. Whence *Amphistides* was adjudg'd a fool because he could not count above five. And *Pythagoras* assigns no other cause of the ratiocination of Man, but this, that he understands how to compute or reckon. For Number is made by order and connexion of many unites, which actions cannot be perform'd but by the Understanding.

The Sixth said, Number being nothing in it self, but a simple work of the Understanding, cannot produce any real effect. And supposing it could, yet Parity and Imparity are but accidental, not substantial formes; and therefore incapable of rendring a number more or less active. Which made *Galen* doubt whether *Pythagoras* could attribute so much power to it, and yet be wise. For, as for *Plato*, 'tis very probable he ascrib'd this virtue to Formes and Essences, which he termes Formal and Rational numbers, rather then to real and true numbers abstracted from Essence. Whereas some have divin'd prosperous and sinister accidents by the imparity or parity of the syllables in some person's name, or whether should live longest the Husband or the Wife, by the greater or less number of their letters; this is rather to be referr'd to Chance then to any thing else.

The Seventh said, Nature makes all her works in Number, since she makes them in Time, which is the number of Motion. Yet 'tis not Number that acts, but Nature alone. For Number is incapable of all action, having no essence of it self, but by accident, and not so much as an essence of reason. For the Understanding conjoyning many unites together, which are indivisibles, and consequently negations, frames a number. And if many unites of substance cannot make a real total it self, much less can many unites of Quantities.



II. Upon the Second Point it was said, That there is nothing barren in Nature, but every thing incessantly produces its like. Which is no less wonderful then the first Creation, the power of which God seemes by this productive virtue to have communicated to Creatures. But that which surpasses all admiration, is, that even the most gross and material things incessantly emit out of themselves infinite, species which are so many pourtrai- tures and resemblances, more exquisite and excellent then their Original. And being every thing ha's its sphere of activity, these species are diffus'd in the Air, and other diaphanous medi- ums, to a certain distance, unless they meet with opake and ter- minated bodies, which hinder them from passing further, and interrupt their continuity with their source, either reflecting them, as it happens when the opposite body is so exactly polish'd that it equally sends back all the parts of the species without mutilation; or onely stopping them, as all other bodies do. Our Sight goes not to seek Objects, but they insinuate themselves into it by their species; whence it is that in a Looking-glass we behold a person that stands behind us. Moreover, all Sen- sation being a Passion, according to *Aristotle*, as Hearing is made by the reception of sounds, so must Seeing by the reception of the Visible Species; nor must this sense be in a worse condition then the rest, who are not at the trouble to go to seek their Ob- jects, but onely to receive them. An undoubted proof whereof is administred by the great conformity which is between the Seeing, Hearing, and Smelling, especially between the two former.

The Second said, That the Visible Species are a reflection of light, which is various according to the different colour and figure of the Objects: Whence it is that a Concave glass reflects not onely the species but also light and heat, augmented by the union of their scatter'd rayes into a point. Now these Species are carry'd into the Eye; and as one nayle drives another, and the agitated Water or Air thrusts that which is next it, so the tunicles and humours of the Eye being struck by the Species the Spirits are stirr'd by the same means, and take the form of the Species according as they arrive; as when the Air is inclos'd in a rock is struck by the Species of some sound, it puts on the form of the Species of this sound, and issuing forth of its cavity with this borrow'd form, makes the voice which we call an *Echo*. These Species being receiv'd by the Spirits, are by them carry'd to the *Common Sense* and the *Imagination*; and then, (after the example of this Faculty) the Intellect formes the like in it self, which are more spiritual and incorporeal then the first, and which at length it commits to the custody of the Me- mory, to make use of the same in fitting time and place.

The Third said, That the greatest difficulty arising about these Visible Species, is, how those of each different object of the



the same place can fill it all, and nevertheless all these Species together not fill it more; yea, not confound and hinder one the other from being as well seen as if there were but one Object. 'Tis otherwise in sounds and smells, which being various give not a distinct perception of any one, but a medley of all. Now the reason hereof seemes to be, because the Visible Species alter not the Air, as odours which are corporeal do; (as appears in that they make us healthy and sick) and 'tis not needful for the Eye to paint them anew, as the Ear new frames all sounds, which cannot be done but successively; the deep tone, (for example) being constrain'd to attend at the portal of the Ear, till the shrill be new form'd in it. Whence ariseth the confusion of sounds.

The Fourth said, As the Visible Species are not mix'd together in a Looking-glass, but all appear distinctly, although the dimensions of the glass be very small in respect of the extent and number of the objects, because the Species concur there in a direct line, and are terminated as in a point, which is capable to lodge them, being they are immaterial: So it is with the same Species in reference to the Air, through the least part whereof 'tis a less wonder that many of them pass without penetration, then to observe the actions of our Memory; in one point of which infinite Species, not onely visible, but those introduc'd by all other senses, remain for a long time, yea, during all our lives; notwithstanding their society seem very incompatible. But although Objects send their Images towards the Sight, yet the Eye emits the most subtile and active Spirits to receive them, which it hath for this purpose. Hence it is that to see a thing distinctly, we contract our Eyes, or shut one of them; to the end the visual beams may be more strengthened by being more united. 'Tis through the dissipation of these spirits that the Eye grows weary with seeing; and old men, those who watch, read, or addict themselves to women too much, see not very clear; and on the contrary, young persons, and the cholerick, whose spirits are more subtile, have a very sharp Sight. But if Sight were performed without any Emission, the Basilisk should not kill by its aspect; the Wolf perceiving a man first should not make him hoarse; women should not infect Looking-glasses at certain times; those who have sore Eyes should not communicate their infirmity to others by beholding them, or being beheld by them: Lastly, old hags could not bewitch Children by the Sight, and Lambs too, by the report of *Virgil*, if the visual spirits which they send forth were not corrupted.

The Fifth said, If the Eye send any thing towards the Object, it must be either a substance or an accident. An incorporeal substance it cannot be, for then a man should emit his Soul, or part of it, which is absurd; besides, that of other Animals, whose Souls are confessedly corporeal, some see better then we. Nor can it be a body, for no body is mov'd in an instant; and yet as soon as we open our Eyes we behold the Stars; yea, we see  
much



much sooner then we hear, and behold the Lightning before we hear the Thunder which preceded it. Nor is it any of the Animal Spirits that issues forth ; from whence should such a quantity be produc'd as to reach as far as the Firmament ? Neither is it an accident, since 'tis against Nature for an accident to go from one subject to another. Now this difficulty may serve for an excuse to Cardinal Perron, when before Henry III, he was gravel'd with this Riddle, *I am a man and no man, I have neither body nor soul, I am neither shadow nor picture, and yet I am seen* ; by which was meant the species of a man beholding himself in a glass. Lastly, either these visual rayes return back to their quarters, after they have been abroad to receive the Visible Species ; (and then Nature should labour in vain by going to seek that which comes of its own accord) or else they return not, and so the vision should not be made in the Eye, but in the Air.

### CONFERENCE XLVIII.

I. *Whether every thing that nourishes an Animal ought to have life.* II. *Of Courage.*

I.  
*Whether every thing that nourishes an Animal ought to have Life.*

EVERY thing in the world is effected by an order and disposition of causes and means subalternate [one to another. God makes himself known to Men by the marvellous effects of Nature. The immaterial and incorruptible Heavens communicate their virtues and influences here below ; first, through the Element of Fire, which is most subtile, and then through the Air which is most pure in the upper Region, more gross in the middle, and in the lower infected by the vapours and exhalations of the Water and Earth, and all compounds ; in the production whereof Nature observes such order as that she begins alwayes with the more simple, and never passes from one extremity to another without a medium. Thus the Plant springeth out of the ground like an herb, becomes a shrub, and then a tree. The Embryo lives onely a vegetable life at first, then arrives to motion, and lastly, is indu'd with reason. Even in civil life too speedy advancements are taken ill, whereas he who grows great by degrees do's not so much offend the Minds of others, and provokes less jealousy. Hence also the deaths, and especially the violent, astonish us more then the births of Men, because they come into the world, and grow up by little and little, but are cut off in a moment. So likewise the burning of Cities, and overthrow of States, cause the more admiration, because sudden vicissitudes seem less conformable to the order of Nature then their progressive erections. That which is observ'd in the composition and generation of bodies holds also in their nutrition,



nutrition, for both of them proceed from the same Faculty, and are almost the same thing. For to nourish, is to be chang'd into the substance of that which is nourish'd. Nature makes no change from one term to another by a violent motion and progress, but by little and little, of a matter capable of being converted into the substance of the living thing; as onely that is which hath life, it being as impossible to make a living thing of that which never was such, and consequently whose matter hath no disposition to become such, as 'tis to make a thing be. which cannot be.

The Second said, (setting aside *Cardan's* opinion who extends life even to Stones) as there are three orders of living things, so there are three that have need of nutrition, Plants, Animals and Men. Plants are nourish'd with the juice of the earth; Animals, for the most part, with Plants; and Men better with the Flesh of Animals, then with any other thing, by reason of the resemblance of their natures. The first order is not here spoken of, because Plants must needs be nourish'd with that which hath not had life, unless we will say, that the universal spirit informing the earth gives it vertue to produce and nourish them. The two latter are only in question, and I think it no more inconvenient that what hath not had life may serve for aliment, and be converted into the substance of a living creature, then that the earth and water (simple elements in respect of a Plant) are assimilated by it and made partakers of vegetable life. For as fire makes green wood combustible by exsiccatating its humidity; so an Animal may render such matter fit for its nourishment which was not so before. Not only the Oestrich is nourish'd with Iron which it digests, Pigeons and Pullen with gravel, the stones of which are found in their crops smooth and round; but also men may be nourish'd with bread made of earth. And the Spaniards are much addicted to the use of an earth call'd *Soccolante* which they mingle with water and sugar; its terrene consistence refuting their opinion who hold it to be the juice of a Plant. Yea, some in Sieges have supported their lives with inanimate things, as with bread of Slate, as 'tis reported of that of *Sancerre*. And, moreover, 'tis manifest that some sick people are nourish'd with water alone for many days together.

The Third said, Nutrition is made by the help of heat, which alters and divides the aliments, and reduces them to a most simple substance, capable of being converted into every similiary part; the property of heat being to separate heterogeneous things, and conjoyn those of the same nature. Hence, things least compounded are more easily assimilated. And as among Medicaments, so among aliments, the more simple are the best, and make fewest excrements. The air doth not only refresh the natural heat, but serves for food and aliment to the spirits, our best and noblest parts; with which air alone, as the common opinion holds, the Camelion is nourish'd, as the Grasshopper  
with



with dew which is nothing but concreted air; and the Jews were fed forty years with *Manna*, which is a kind of dew (for the Scripture saith it vanish'd with the heat of the Sun) yea, the *Manna* which is found at this day in *Calabria* & other places is capable of nourishing an animal, and yet it never had life, but fall's from heaven upon the stones, from which it is collected. The same may be said of hony, which is a kind of dew too falling upon the leaves & flowers of Plants, and serving for food to Bees who only gather it, without other preparation. And a sort of Flyes call'd *Pyrausta* live with nothing but fire, as many Fishes do of plain water, Moles and Worms of simple earth. Antimony and divers other Minerals, purg'd from their malignant qualities, serve for aliment; and they who are expert in Chymistry make a kind of bread of them. The Magistery of Pearls and Coral, many precious Stones, and Gold it self, by the consent of all antiquity, wonderfully repair our radical moisture by their fix'd spirits; whence they are call'd Cordials.

The Fourth said, If man were homogeneous and all of a piece, he would be not only immortal, according to *Hippocrates*, but need no food, which is necessary only for reparation of what substance is consum'd; now nothing would be destroy'd in man, were it not for the heterogeneous pieces of which he is made up. Wherefore since we are nourish'd with the same things whereof we are compos'd, and we are not compos'd of one pure and simple element, but of four, it follows, that whatever nourishes us must be mix'd of those four Elements; and therefore the more compounded it is, as animate things are, the more proper it is to nourish. Otherwise were the aliment pure, it could not be assimilated. And although it could be assimilated, yet it could not nourish the whole body, but only either the terrestrial parts, if it were earth; or the humours, if it were water; or the spirits, if it were fire or air.

The Fifth said, The life of man cost Nature dear, if it must be maintain'd at the expence of so many other animals lives. If you say, that being made for man, the greatest happiness that can befall them is to serve him in something though by the loss of their lives. But this is rather a fair excuse to cover our cruelty and luxury; seeing Animals are no more proper then Plants to nourish man. Witness our first Fathers, before the flood, who were so long-liv'd although they liv'd not of flesh. Whence 'tis inferr'd too that inanimate things may nourish us better then Plants. For the taste is an ill judge in this cause; the Eele, amongst animals, and the Peach, amongst fruits, affording the worst nourishment, though they relish most deliciously. The Similitude of substance is of little consideration; for Animals live not of their like, and the Cannibals are ordinarily all Leprous. That a thing may be food, 'tis sufficient that it have an humidity or substance proportionate to ours, in what order of things soever it be found. And nature has had no less care of nourishing an animal then of healing it, but she has endu'd all sub-



sublunary bodies with properties medicinal to man. Lastly, we cannot reckon among Plants those excrescences which we call *Truffles*, and are held to be produc'd by thunder in some kinds of earth, whence they are gather'd; and yet they nourish extremely.

The Sixth said, When that which enters into the Stomack is alter'd by it, 'tis call'd aliment; for heat is the chief Agent by which it is united and assimilated; whence it comes to pass that according to the diversity of this heat, Hemlock serves for nourishment to the Starlings, but kills man. Now to judge whether that which hath had life be more proper for nutrition than that which hath not; we need only consider upon which of the two the natural faculty which disperses this heat acts most powerfully; which, no doubt, it doth upon that which hath had life, since it hath the conditions requisite to food, being in some sort like, as having been alive; and also qualify'd to become so again, because when a form forsakes its subject it leaves dispositions in it for a like form to ensue; 'tis also in some sort unlike, being actually destitute of life. Wherefore as that which hath life really cannot nourish a living thing because of its total resemblance, and there is no action between things alike, otherwise a thing might act against it self, since nothing is more like to any thing than it self. So that which never had life cannot nourish an animal, by reason of its intire dissimilitude, and because between things wholly unlike there is no action.

Upon the second Point; If 'tis worthy admiration that amongst Animals a little dog gives chase to a multitude of Oxen (whence the Hebrews call a Dog *Cheleb*, that is to say, All heart, in regard of his courage) 'tis more to be wonder'd that amongst men who are of the same species, and fram'd after the same manner, one puts to flight three others, greater, stronger and oftentimes more dextrous than himself. The cause hereof is attributed to heat; but (besides that we see many sufficiently heated in every other action, but cold when it comes to fighting;) as they say there are good Grey-hounds of all sizes; so there are great courages of all tempers; and although the hair, complexion, stature, and habit of body, are the most sure witnesses, yet every body knows that there are valiant men found of all hairs and statures, yea of all Ages, the seeds of courage being manifest in children, and the remainders in old men. It seems therefore that courage proceeds from the fitting and well proportion'd temper and structure of the heart and arteries; for when these are too large, the spirits are more languid, and the actions less vigorous, either to repel present dangers, or meet those which are future. Yet the Cholerick are naturally more dispos'd to magnanimity, the Phlegmatick and Melancholy less, and the Sanguine are between both. Education also and custom are of great moment, as we see Rope-dancers and Climbers perform

II.  
Of Courage.



strange feats with inimitable boldness, because they have been us'd to walk upon Ropes, and climb the Spires of Churches, from their youth. So a child that has been accusom'd to dangers from his infancy will not fear any. Moreover, Honour and Anger are great spurs to valour, especially, when the latter is sharpened by the desire of revenge, which is excited by injury, derision, or ingratitude. Exhortations too are very effectual. And therefore when ever *Cæsar's* Souldiers did not behave themselves well, he observes that he had not had time to make a speech to them. Nor is Necessity and the consideration of present danger to be omitted, for the greatest cowards oftentimes give proofs of courage upon urgent occasions, when there's no hope of flight; and one of the best wiles of a General is to take from his Souldiers all hope of retreat and safety otherwise then in victory. Example also prevails much, both as to flying and to fighting. Wherefore those that run first ought to be punish'd without mercy, as they who first enter a breach, or are farthest engag'd amongst the enemies, deserve great acknowledgement of their vertue. But particularly amongst persons acquainted and mutually affectionate, courage is redoubled by the presence of the thing belov'd; witness the sacred Legion of the Thebans. But the desire of honour and hope of reward are the most powerful incitements to valour. Upon which account the King's presence is always counted equivalent as all his Troops together.

The Second said, Courage is a vertue plac'd between boldness and fear. Yet it is chiefly conversant in moderating fear, which is an expectation of evil. Amongst the evils and adversities which cause terrour to men, some are to be fear'd by all, and cannot be slighted by a vertuous man, as ignominy, punishment for a crime, or other infamy. Others may be fear'd or despis'd without blame, if our selves be not the causes of them, as Poverty, Exile and Sicknes. And yet a man is never the more couragious for not fearing them. For a Prodigal is not couragious for not fearing Poverty; an impudent fellow that hath lost all shame may easily despise banishment, as *Diogenes* did; and a Sot will be insensible of an incurable disease, which a wise man supports patiently. Lastly, some evils are to be contemn'd, as all dangers and misfortunes which necessarily come to pass in life, and death it self; in the despising of which the greatness of courage principally appears, especially in that which happens in the wars, fighting for one's Prince and Country, as being the most honourable and glorious of all.

The Third said, No vertue can keep us from fearing death, which gave so great apprehension to the most wise, and to our Lord himself, and which *Aristotle* deservedly calls the most terrible of terribles; the same Philosopher also teaching us that a vertuous man infinitely desires to live, and ought to fear death; because he accounts himself worthy of long life, during which  
he



he may do service to others, and he knows well that death will deprive him of all the goods of this world ; since well-being presupposes being. Therefore courage do's not wholly take away the fear of death, no more then the sense of pain, which is natural ; otherwise a courageous man ought to be insensible and stupid. But he governs this fear in such sort that it do's not hinder him from overcoming his enemy, although it render him more prudent and circumspect in seeking fit means to attain thereunto. Herein he differs from the rash person, who casting himself into dangers without having foreseen and maturely consider'd them, becomes faint-hearted in the chieft of the brunt.

The Fourth said, A courageous man is known by what he attempts without rashness, and accomplishes without fear ; for he always represents to himself the danger greater then it is, to the end, to arm himself with strong resolutions, which once taken 'tis impossible to make him retract. His courage proceeds neither from experience nor necessity, nor desire of gain, ignorance or stupidity ; but having well consider'd the danger, and judg'd it honourable to resist it, he doth so upon the sole account of vertue, and shews himself indefatigable in undergoing toils, and invincible even in death. 'Tis not enough that his cause be good, he will end it by lawful means, and had rather lose his right then attempt such as are unjustifiable and displeasing to his Prince. Therefore our Duellists must conclude that they abandon solid honour, to follow its shadow ; since honourable and just are inseparable. The sword is his last remedy, and he uses it more to defend then to assault, but always with some kind of constraint, and yet none wields it with more sureness and grace, fear not causing him to make unseemly gestures. He hates nothing so much as vice. He speaks little but acts much, liking rather to be seen then heard. He chuses not the kind of death, but receives that which is offer'd, in which nothing troubles him saving that it deprives him of the means to do his King and Country more service. If his ill fate make him a slave, he will not employ death to deliver himself from servitude, as *Cato* of *Utica* did, shewing thereby a figure of cowardize rather then of courage ; but he will so deport himself as to seem free in his bondage, yea to have dominion over those who command him. In fine, whether he be conqueror or conquer'd, he loses nothing of his magnanimity, but remains always like himself, firm in his resolutions. To attain to which greatness of spirit 'tis not enough that the structure of the body be large, or the heat of temper as great as that of *Leonidas* the Spartane, *Matthias* the Emperour, or the Pirate burnt alive at *Gradisca* by the Venetians, the hearts of which three were found hairy ; there must be moreover an heroick soul, informing this body.

The Fifth alledg'd, that the Original of courage is to be sought in the nobleness of extraction, whether it be known or



not. For though there seem to be some intervals in illustrious families proceeding from malignant influences, or other impediment; yet there is observ'd generally no less resemblance of children with their Ancestors in mind then in body; Eagles never producing Doves, nor Doves Eagles.

### CONFERENCE XLIX.

I. *Whether there be Specifical remedies to every Disease.* II. *Whether Tears proceed from Weakness.*

I.  
*Whether  
there be Spe-  
cifical reme-  
dies to every  
Disease.*

**M**EN, in imitation of Nature, always seek the shortest way. For which purpose they have thought fit to make maxims of every thing; whereas, to speak truth, there is no maxim of any thing; since by the most certain rule of all, there is none so general but hath some exception; yea some have so many exceptions that 'tis dubious on which side to make the rule. Nevertheless the mind of man forbears not to make axioms in all Sciences, especially in Physick: whose Office being to govern Nature, it involves in certain general laws all diseases, with their causes, symptoms and remedies, although as in the Law, so in Physick, two Cases are never alike. But when these rules come to be apply'd to practice, every one confesses that he finds them not wholly correspondent to what he expected. Now this is chiefly to be understood of particular Diseases and Specificks; as the Pleurisie, Cataract, or Gout. For general Infirmities, as simple Intemperatures, may be cur'd by general Remedies endu'd with contrary qualities.

The Second said, Specifick is that which is determin'd to some one thing, and hath above it the Generick; and below, the Individual. It is demanded, here, whether there be Remedies so determined to one species or sort of disease, as that they sute to that alone. I conceive that since there are diseases of all forms, as Pestilential, Venomous and Malignant, there are also Remedies so too: and experience shews in many admirable Cures that there are Remedies whose effects depend not on the first Qualities; as that Rheubarb purges, that Mugwort is good for the Mother, and Bezoar a Cordial, comes not from heat and dryness in such a degree; for then every thing that hath the same temperament should be likewise purgative, hysterical, and cordial; which is not true. But nothing hinders but a Remedy may be specifick to one particular Distemper by its occult qualities, and yet profitable and sutable to others by its manifest qualities; as the same thing may be both food and physick.

The



The Third said, That this Question depends upon another, namely, whether mixt bodies act only by their temperature and first qualities, or by their substantial forms or specifick vertues. For if the action of every thing depends not on the various mixture of its qualities, but on its whole form and substance, Medicines will never cure as they are hot or cold, but by a particular specifick vertue arising from their form, wholly contrary to that of the disease. For understanding whereof, 'tis to be observ'd, that as the natural constitution of every mixt body consists in a perfect mixture of the four Elementary Qualities, in the good disposition of the matter, and in the integrity of the form; so the same may suffer mutation in either of these three manners, either according to its temperature, or according to its matter, or according to its form. Whence it follows that every mixt body, as medicaments are, may act upon our Nature, by its first, second, and third faculties. The first proceed from the sole commixtion of the four Qualities; according to the diversity whereof, the compound is either Hot, (as Pepper,) or Cold, (as Mandrakes) or Moist, (as Oyle,) or Dry, (as Bole Armenick,) not in act, but in power. And by this First Faculty alone which follows the Temperament, a Medicament acts chiefly upon the Temperament of Bodies. Their Second Faculty arises from the various mixture of the same Qualities with the Matter. For a Hot Temperament, joyn'd to a matter dispos'd according to the degree of Heat, will be opening, cutting, corrosive, or caustick; and so the rest, which have a great latitude according to the degrees of their mixtion, from which they are said to be attenuating or incrassating, deterfive or emplastick, rarefying or condensing, laxative or astringent, attractive or repelling, mollifying or hardning. And by this Second Faculty alone Medicaments act upon the Matter. The Third Faculty of Medicaments arises not from their qualities or matter, but from their form and specifick occult vertue; as in *Sena* the Faculty to purge Melancholy; in *Terra Sigillata* or *Lemnia*, to fortifie the Heart against poysons; as also that Scorpions kill with the tail, and certain poysons cause death without any alteration of the Temper.

The Fourth said, diseases are consider'd either in their genus, in their species, or in their individuals. In the first way, as a Disease is nothing but a disposition contrary to Nature, and injuring the actions; so it is cur'd by introducing the natural disposition. In the second, if it be an intemperature (*e.g.*) cold in the second degree, its specifick is hot in the same degree; if it be an Organical Disease, (as an Obstruction) the onely remedy is to unstop the passages; if it be solution of Continuity, all that's to be done, is, to conjoyn that which is divided. But if a Disease be consider'd in the Individual, then particular remedies of the same nature be employ'd, which are the true specificks.

The Fifth said, 'Tis true of the causes of Health, as well as of those



those of Diseases; that the same thing is hurtful or healthful to one but not to another, not onely amongst the different species, but also amongst the individuals of the same species, in regard of the several circumstances. A remedy that recover'd one kills another; yea, that which not long ago was healthful to an individual person is now quite contrary. So that 'tis impossible to assign any specificks for an individual person, which nevertheless is the subject on which the cure is to be done, and not the species of man.

The Sixth said, Every thing in Nature is determin'd to a particular action, proceeding from its form and essence, which is more adapted to such action than to any other. So a Tree is determin'd to produce one kind of fruit rather than another. Now the same may be said of Remedies drawn from the three families; some are proper to purge a particular humour, whence they are call'd Cholagoga, Melanogoga, Hydragoga, Emeticks, Diureticks, Diaphoreticks, Discussives, Sternutatories, and Bechicks; others strengthen a particular part, whence they are call'd Cardiacks, Cephalicks, Hepaticks, and Splenicks; some have a faculty of resisting particular poisons; so Treacle is specifical against the biting of a Viper, a Scorpions flesh apply'd upon its own wounds heals it; Oyle of Pine-nuts is good against Arsenick; Long Aristoloch, or Rue, against Aconitum or Wolfs-bane; Citron Pill against *Nux Vomica*, or the Vomiting Nut; the seeds of Winter-cherry, against the Cantharides, or Spanish Fly; Mumie against Ulcers caus'd by Tithymal; the flower of Water-lilly against Hellebore; the root of Eglantine, Gentian, Bawme, Betonie, Pimpernel, are excellent against the biting of a mad Dog; and so others of the like nature. Some Medicaments are call'd Amulets, because being worne about the neck, or lay'd to some part of the Body, they preserve from Diseases. So, by the testimony of *Galen*, Peony worne about the neck averts the Falling-sickness; the dung of a Wolf eases the Cholick, and the Jasper strengthens the stomach. *Trallianus* affirms; that the Eagle-stone (*Ætites*) cures Quotidian Agues; the Beetle and green Lizard, Quartanes; that the forehead of an Ass, and a nail taken out of a shipwrack'd vessel, is excellent for the Epileptick Fits. The ashes of Frogs is good against bleeding; the *Lapis Judaicus*, and the blood of a Goat, are useful against the stone of the Kidneys; the water of a Stag's horn, and the bone of his heart, are excellent for infirmities of the heart. Now to refer all these wonderful effects to the First Qualities, is a groundless thing: And therefore *Galen* derides his Master *Pelops* for attempting to render a reason of them.

The Seventh said, That Physick, invented at first by use and experience, has nothing to do with Reason in things which fall manifestly under our senses, but onely in such as surpass their comprehension; which being confirm'd by Reason, are much more



more infallible. Nevertheless when Reason seems repugnant to Experience, we must rather hold to Experience, provided the same be establish'd upon many observations. Now since Experience shews that there are Specific Remedies, although humane wit, in regard of its weakness, cannot find out the cause of them; yet 'tis better in this case to rely upon the testimony of the senses destitute of Reason, then to adhere to Reason contradicted by Experience. Moreover, if there be Specifics for some Diseases, there are so for all; but they are unknown to us by reason of their multitude. And who is he that can know the virtues and properties of every thing which is in the world? The Chymists are of this opinion; for they hold that all Medicaments have Signatures or particular marks and figures, by which they have resemblance with the parts or diseases of Man's Body, and which are, as 'twere, the titles and inscriptions imprinted upon them by God's Hand, to teach Men their faculties. Hence the herb Lung-wort is very good for the Lungs; Ceterach and Harts-tongue for the Spleen; Poppy and green Nuts for the Head; *Satyrion* for the Testicles; Winter-cherry for the Bladder; Birthwort for the Womb; Maddar for broken Legs; Eyebright for the Eyes; *Solomons* seal, and Thorow-wax, for Ruptures; because the root of the one resembles a Rupture, and the stalk of the other passes through its leaf, as the Intestine doth through the Peritonæum; the roots of Tormentil, red Sanders, and the stone Hæmatites, for bleeding; blessed Thistle, and other prickly Plants, for the pungent pains of the side.

The Second Point may be determin'd by comparing the great and little world together. In the former, the Sun's heat draws up vapours and exhalations into the Air; if the vapours be more in quantity than the other, they dissolve into rain; if less, then the exhalations are turn'd into winds, lightnings, and other igneous meteors. And as we cannot infer from thence, that the Sun suffers any alteration, or is colder and hotter; for whether it rains or be fair, he is still the same: So neither must we attribute new qualities to the reasonable soul, though it finds in the brain a matter either apt to be condens'd into tears, or to be resolv'd into the blustering stormes, and other effects of Choler; yet 'tis alwayes the same soul, which, according to the various temper of the body, is easily or hardly mov'd to tears. Women, Children, and old men, are prone to weep, because their brain is more moist than that of men of middle age; and again, those of them who are flegmatick and sanguine are more inclin'd to tears than the cholerick and melancholy; the latter least of all, in regard of the solidity and dryness of their brain, and the thicknes of their blood. Although there is a sort of melancholy not-natural, much abounding in ferocities; and for that reason styl'd Aqueous by *Hippocrates*. Now weeping is caus'd in this manner. A sad subject seising upon the

II.  
Whether  
Tears proceed  
from Cow-  
ardise.

Heart,



Heart, the Arteries carry the fuliginous vapours thereof to the brain, which discharging the same into the sink, call'd the *Infundibulum*, or Tunnel, they seek issue at the next passages, which are the mouth, the nose, and the eyes, at the great angle or Canthus, where the *Glandula Lachrymalis*, or Weeping Kernel is seated, which hath a hole like the point of a needle. This Glandule is made very small, whereas the Spleen, which causeth Laughter, and the Liver, which causeth Love, are very large; because Man might possibly want subjects for the two former, and consequently ought to be provided for, but not matter of sadness.

The Second said, As amongst Animals Man hath the greatest brain, so he needs the most Aliment, and consequently makes more excrements then any other; these are collected in the anterior Ventricles, and between the membranes, where they remain till the Expulsive Faculty, incommoded by their too great quantity, or pungent quality, expells them by the usual passages; and thus they supply wax to the Eares, mucosity to the Nose, and tears to the Eyes. Whereby it appears that tears are not alwayes signes of Pusillanimity, since they proceed from causes which no body can avoid. Moreover, Joy, as well as Sorrow, expresses tears, though by means wholly contrary. For Joy dilating and opening the passages by its heat, causes those humidities to issue forth; and Grief compressing the passages forces the same out; as a sponge yields forth the water which it had imbib'd, if you either dilate it or squeeze it. Their saltness, bitterness, and acrimony, is common to them with all the ferosities of the body, which they acquire by their continuance they make in the brain, as their heat by the spirits which accompany them. For the tears both of Joy and Sadness are hot, or rather tepid, though those shed in Joy seem cold, because the cheeks are warme in Joy, which draws the heat and spirits from the centre to the circumference; and in Sadness they appear hot, because they drop upon the cheeks which are cold, through the absence of the heat and spirits caus'd by sadness to retire inward. But those Tears which proceed from a disease, as from a defluxion or distillation, are really cold, because they are caus'd by the crudity of the humours.

The Third said, That Tears of sorrow come not from compression, (for we cannot weep in a great sadness) but from a particular virtue which grief hath to send them forth. For Nature being willing to drive away the cause of Grief, sends the heat and spirits towards it, which heating the external parts attract the humours thither. Hence it is Onyons lancing the Eyes by their sharp spirits cause weeping, as smoke likewise doth, and the steadfast beholding of an object, and too radiant a light, by the pain which they cause to the sight. Nor do's this hold good, onely in pain but in grief, particularly in compassion, which is a grief we resent for anothers misery. For the consideration of a sad object setting the humours in motion, and attenuating them,



them, causeth them to distill forth by the Eyes, mouth, and nose. This is also the reason why those who run impetuously on horse-back or afoot, sometimes drop rears; for the heat excited by this motion draws sweat forth over all the body; and tears to the Eyes, being of the same nature with sweat. Unless you rather think that this may be caus'd by the coldness of the new Air, which condenses and presses forth these humidities. Wherefore we cannot absolutely pronounce that tears are Symptoms of Pusillanimity, seeing 'tis not in our power to restrain them what ever courage we have; and oftentimes example no less invites us, then duty obliges us, to let this torrent take its course.

The Fourth said, If it be true that the most couragious are of the hottest constitution, 'twill follow that tears are rather a sign of Magnanimity then of Cowardice, since they are most frequent to such as abound in heat and moisture. For as water issues out of green wood heated by the fire; so tears are forc'd out of the Eyes by the internal heat excited by Joy, Grief, Anger, or other disorderly motion. For through the immoderateness of this heat the coldness of the Brain is increas'd by Antiperistasis, and endeavours to with-stand it; for which purpose it collects together abundance of cold vapours, which the heat over-powering causes that cloud of humour condens'd by cold to distill by the Eyes in a showre of tears. Yet if this be done too often, then the same happens to the man as doth to a stick or cudgel, which being too much bow'd one way and the other, is at length broken. In like manner, a couragious person often provok'd so farr as to weep, at last becomes relax'd and softned through the loss and consumption of his spirits, which are the instruments of Courage. Therefore to weep too often is a sign of Pusillanimity and softness; never to weep, is stupidity; to weep sometimes for the miserable estate whereinto this valley of tears reduces us, 'tis necessity. Indeed, Our Lord wept often. Saint Peter, so courageous that he struck the onely blow mention'd in the Gospel, wept bitterly. And Alexander wept for the death of Darius; as his own Triumphs caus'd Caesar to weep, in whom it was accounted Humanity that he wept at the sight of Pompey's head, as David did for the death of Saul.

The Fifth said, That as griefs are diminish'd by weeping, so it may seem that tears should soften the courage which proceeds from anger, as most doth. And as pity is opposite to revenge, so tears seem contrary to valour, since they are so both to revenge and choler, which are the effects of magnanimity. Add hereunto; that we live by example; and therefore seeing tears more frequent to weak and effeminate persons then to others, we easily draw a general consequence, although the same admit many exceptions.



## CONFERENCE L.

I. *Whether Colours are real.* II. *Whether is better, to speak well, or to write well.*

I.  
*Whether Co-  
lours are  
real.*

**T**He knowledge of men is never compleat : what they know in one manner they are ignorant of in another. Nothing is so manifest to the sense as colour, nothing so obscure to the Understanding, which doubts whether it hath a real existence, or whether it only appears such to us, according as bodies variously receive the light. Indeed Green and Blew seem all one by a candle, and the same colour seems different from what it was by day-light; which again makes the species vary according to its diversity; for we judge of them otherwise in the twilight, in the Sun, and in the shadow; otherwise beholding them slopingly, directly, or through a colour'd glass, or neer some other lively colour. Are any colours fairer then those of the Rain-bow; and yet they are no more real then those of the Clouds. The whiteness which we behold in the milky way ariseth only from the light of many small Stars. The necks of Pigeons seem of a thousand more colours then they have. The Heavens, the Air, and the Water, have none but what we phancy, or what their depth, and the weakness of our sight, gives them. The scales of Fish, some small worms, and certain kinds of rotten wood, shining in the night, seem to us to be colour'd. And Pictures are apprehended well or ill drawn according to their situation.

The Second said, The object of Vision is colour; the Organ, the Eye; the *medium* is a Diaphanous body illuminated. Provided these three be rightly dispos'd, the Organ and the *medium* free from all colours, and the object at a convenient distance, all men will necessarily behold colours as they are, and always alike: which would not be so if they were imaginary, or fortuitous. Besides, being the object of the sight, the surest of all Senses, they ought to have a real existence, as all the objects of the other Senses have. For the object of the outward sense must be real, otherwise it cannot act upon the Organ; and the Agent and the Patient ought to agree in the same genus.

The Third said, Colours, as all other second qualities, have a real existence, since they arise from the commixtion of moist and dry, caus'd by heat, and determin'd by cold. The first thing that happens in this mixtion is, that the humidity is thickened by the accession of some dry substance; and of this co-agulation is made a green colour, which therefore is the first of colours, as may be observ'd in water, the grosser parts of which become green moss; and in Plants when they first spring out of the earth. But if heat exceed in the mixtion, then ariseth the

Red,



Red, Purple, and other lively and bright colours, which according as they degenerate, attain at length to Black, which is made by adustion. But when mixtions take a contrary course by cold, then arise all dead colours, which terminate in black too by a contrary cause, namely, the total extinction of heat, as 'tis seen in old men and dead persons, who are of a leaden and blackish colour. As therefore green is the first, so Black is the last of colours, yea 'tis properly no colour, especially when the humidity is already all consum'd, as in coals; or is separated from the dry parts, as in things become black by putrefaction, as the gangrenous parts of an animal. Neither is white a colour, but a mean between colour and light. The rest are true colours.

The Fourth said, Colours cannot proceed from the temperament or mixture of the four first qualities, because mixt bodies of different temperature have the same colour. Sugar, Arsenic, and all Salts, are white, the Crow and Raven are black; and, on the contrary, one and the same mixt body of the same temperature in all its parts, is nevertheless of several colours, which it changes without mutation of its temper. Ebony is black in its surface, and grey within; Marble, Jasper, and Porphyry, delight the sight chiefly by the variety of their colours; yellow Wax grows white, and white becomes black, in the Sun. Nor can any one say, that the part of a Tulip which differs in colour from all the rest, is therefore distinct in quality. Wherefore since colours proceed not from the first elementary qualities, they are no more real then the intentional species of the sight; yea they are the very same thing; for the visible species are nothing else but qualities streaming from every terminated body, which alter the *medium*, filling the same with their images which they diffuse even into the Organ. Now colours are the same, being qualities which actually change and alter the Diaphanous and illuminated body.

The Fifth said, This argues that we are ignorant of the reason of the mixtion of every body, and why such a body hath such a colour, but not that colours are not true and real. Yet with this distinction, that the colours alone which are seen with the conditions requisite to sensation are real, that is to say, exist really, and not in the Imagination. For if it were not so, we should see them as well by night as by day, and with our eyes shut as open; as that foolish *Antiphon* did, who thought he always saw his own image before him. And a sensible faculty ought to have a real and sensible object, since the object must be of the same nature with the faculty. But there are colours which are not really in the surface of bodies, though they appear so to us by reason of the divers reception of light, or of some other extrinsecal colour of a transparent diaphanous body, or some other external cause which hinders the eye from discerning the true colour of the mixt body; which colour though appearing



otherwise then it is, yet really exists, but is hidden under another apparent one, which continues as long as its external causes. And colour'd bodies are no less so by night then by day; but because vision cannot be made unless the *medium* be illuminated 'tis only through the want of light that we see them not in the night. For although we perceive in the dark the eyes of Cats, Toad-stools, Worms, certain horns, and rotten wood, yet 'tis not their true colour, but a certain splendor different from colour; which proceedeth either from their igneous spirits, or because they approach neer simplicity. There is, therefore, reality in colour; but it is consider'd two ways; either as a quality resulting from the mixture of the four Elementary qualities; (in which sense 'tis defin'd, by *Aristotle*, the extremity of a *perspicuum* terminated;) or as being simply visible, and is defin'd, by the same Philosopher, a motive quality of a body actually diaphanous. In the first signification, the colours seen in the Rainbow, or the yellow colour cast upon a white wall by the Sunbeams, passing through a glass or other *medium* of the same colour, are no more real and true colours of those subjects, then the blackness upon Paper by reason of the ink hiding its natural whiteness. But, in the latter signification, every colour whatsoever is real, since the one is as well visible as the other.

The Sixth said, Colour differs not from light, saving that colour is the light of mixt, and light is the colour of simple bodies, which the more simple they are, they are also more luminous. But if they communicate not their light, 'tis for want of density, which is the sole cause of all activity. The parts of Heaven are equally luminous; and yet only the more dense and thick, as the Stars, can diffuse their light to us. If this light grows weak, it degenerates into a white colour, as we see in the Moon and Stars; if it be more extinct, it turns into other colours (as the Blew which we behold in a clear Sky) and forward into others, till it come to black, which is no colour, but a privation of it; as darkness is nothing but the privation of light. So that to dispute the reality of colours, is to question whether the clearest thing in the world, *viz.* Light, be real.

The Seventh said, Light and Colour differ, in that Light is the act of the Diaphanous body, inasmuch as 'tis Diaphanous, and Colour the extremity of the *Diaphanum*, as it is terminated. For no *Diaphanum*, whilst it remains such, is colour'd, but colour ariseth from the condensation and thickness of the *Diaphanum*, which terminates our sight. And though colour be as much in the inside of bodies as in their surface, yet 'tis not call'd colour, saving when 'tis visible, and 'tis visible only in the surface. Light is incorporeal and immaterial; colour, on the contrary, is a material and corporeal quality. Light makes colour to be seen, but makes it self seen by its own vertue. Yet there is this resemblance between them, that every thing which we see colour'd, we see it as luminous (whence *Plato*, in his *Timæus*, call's



call's colour a flame issuing out of bodies) and every thing that we see luminous, we see it inasmuch as 'tis colour'd : Whence the Stars appear to us of a pale, yellow, or red colour. And as that which is terminated is seen by means of the illuminated *Diaphanum*, so this *Diaphanum* is seen because 'tis terminated. For when we see the colour of a terminated body, we judge that there must be a transparent and diaphanous body between it and our eye. Wherefore, as the Intellect doth not know it self but by another ; so the eye doth not see the *Diaphanum*, but by seeing that which is not diaphanous. But both the one and the other seems partly real, and partly imaginary, and arising from the various relation and proportion of the eye to the object and the *medium* : since, as for colours, not only some Pictures represent several personages, but one and the same Taffeta changes colour according to the divers situation of the spectator's eye. And as for light, you shall have a worm that appears great, and shines in the night, but is little, and grey, in the day.

Upon the second Point it was said, There is so great an affinity between Speech and Reason, that the Greeks have given the same name to both. As Reason is peculiar to man, so is Speech ; and therefore (saith *Aristotle*) he alone has a large, soft and moveable tongue, not only for the distinguishing of Tastes, as other Animals, but for the uttering of words, which are the interpreters of his thoughts ; call'd words of the mind, as the other are external words. 'Tis this Speech which protects Innocence, accuses Crimes, appeases popular Tumults and Seditious, inflames Courage, excites to Vertue, dissuades from Vice, and gives praise to God and vertuous Men. Writing it self hath not much force, unless it be animated by Speech, which gives weight and grace even to the least things. This was imply'd by the Ancients when they feign'd that *Orpheus* assembled even Trees and Rocks by the sound of his Harp, which is the Emblem of Speech. And, therefore, I judge Speech to have the precedence of Writing.

The Second said, There are persons who speak well and write ill ; others, on the contrary, write better then they speak ; others (but very few ) do both well. And yet, if it be not through fault of the outward Organs, it seems hard to conceive how 'tis possible for a man to write well and speak ill, since 'tis the same judge which dictates to both Clerks, the hand and the tongue. For though one ordinarily goes swifter then the other, yet they must both express the same thought. But 'tis oftentimes with Speech as 'tis with faces, which seem handsome if you behold but a glance of them ; whereas fixing your eye more wistly to consider them, you discern even the least faults ; so a discourse, upon which you have not leisure to reflect, may seem elegant, yet displease you when 'tis unfurnish'd of its external ornaments, Pronunciation and Gesture. Moreover, we see

II.

Whether is  
better, to  
speak well, or  
to write well.



see how little effectual a Letter is in comparison of animated words, to which I also give the precedence. 'Tis of little importance to an Advocate whom his want of Eloquence causes to dye of hunger, whether his reputation be made to live after his death. Nor was it from the eyes or hands of our *Gallic Hercules* that our Fathers made the golden chains proceed; which drew the people by the ears, 'twas from the tongue. And 'twas with the voice that the Father of Roman Eloquence overway'd the mind of *Cæsar*, and *Demosthenes* that of all *Greece*.

The Third said, I much more prize Writing, which refines and polishes our conceptions, which otherwise escape from great persons but ill digested. Whence arose the saying, That second thoughts are usually the best. Moreover, Writing is of long duration, and is communicated to many how remote soever in time and place. Which astonish'd the people of the new world when they saw that the letters which the Spaniards carri'd to their comrades communicated the mind of one to another; and they thought them to be familiar spirits. But when this Writing is well perform'd, it hath great weight with Posterity too; whence it is that we still admire the brave conceptions of antiquity, which would have perish'd had they been deliver'd only in words, which dye as they are born.

The Fourth said, Writing hath this inconvenience that it cannot be comprehended by more then one or two persons at a time; whereas the Voice reaches to many thousand together; without receiving any diminution (which is some resemblance of Divinity) and consequently is the more noble.

The Fifth said, If we judge of the preeminence of Speech or Writing, by the difficulty there is in either (according to the Proverb, which saith that the most difficult things are the most excellent) the question will remain undecided. For there was never either a perfect Pen-man, or perfect Orator; but if we judge of the advantage by the effects, 'tis certain that Writing hath more weight then Speech, and is therefore much more considerable. And though words once utter'd cannot be recall'd (no more then a written thing be retracted) yet being consign'd to a very flitting and inconstant element, they are of little duration; whereas being written they last to eternity. Which consideration so highly incens'd *M. Anthonie* against *Cicero*, for publishing his Philippicks against him; and made *Eubalus* hang himself for what *Hippanax* had written against him, as *Lycambes* did upon *Archilochus's* Jambicks. For the benefits and mischiefs of Writing are great. Which makes for it, since the more excellent a thing is, the more hurtful the abuse of it is; and, according to *Aristotle*, Men abuse every thing, except Vertue.

The Sixth said, 'Tis true, Speech is peculiar to man, but 'tis a token of the impotence and weakness of our mind, which cannot know other's thoughts in their purity, as Angels and blessed Spirits



Spirits do, who understand one another without external Speech. But the soul of man is so subjected to the Senses, that it cannot apprehend spiritual things unless they be represented to it as corporeal. Besides, Speech belongs not so to man alone, but that brutes (especially, those who have soft, large and loose tongues, as Birds) can imitate it, but Writing they cannot. Moreover, a thing is more excellent by how much nobler the cause is on which it depends. But to speak well depends on the Organs rightly dispos'd; to write well, on the understanding alone. For the Air, the Lungs, the Tongue, the Teeth, and the Lips, make the Speech; but the mind alone begets the thoughts which writing consigns to the sight, the noblest of the Senses. Eloquence is diminish'd by Diseases, old Age, or the least indisposition of the Organs; but the style which depends on the Mind alone (which never grows old) becomes more vigorous as the body waxes weaker.

At length it was said, That the present Question making up the Century of those propounded since the resolution of printing, it seem'd fit to make them the first Volume of Conferences; and because this Number, the Season, the Example of others, the affairs which many have in the Country, and the necessity for minds as well as bodies to take some relaxation, require a Vacation for this Company; it is therefore adjourn'd till Monday before the Feast of St. *Martin*.

---

*The End of the First Part.*

---



the king, who was then in the north, and who was not yet returned to Paris, the king's council, and the king himself, were all of opinion that the king should not go to the north, but should stay in Paris, and should send the king's army to the north, to oppose the king's enemies. The king, however, was of opinion that he should go to the north, and should lead the king's army with him. The king's council, however, was of opinion that the king should not go to the north, but should stay in Paris, and should send the king's army to the north, to oppose the king's enemies. The king, however, was of opinion that he should go to the north, and should lead the king's army with him. The king's council, however, was of opinion that the king should not go to the north, but should stay in Paris, and should send the king's army to the north, to oppose the king's enemies.

The king, however, was of opinion that he should go to the north, and should lead the king's army with him. The king's council, however, was of opinion that the king should not go to the north, but should stay in Paris, and should send the king's army to the north, to oppose the king's enemies. The king, however, was of opinion that he should go to the north, and should lead the king's army with him. The king's council, however, was of opinion that the king should not go to the north, but should stay in Paris, and should send the king's army to the north, to oppose the king's enemies. The king, however, was of opinion that he should go to the north, and should lead the king's army with him. The king's council, however, was of opinion that the king should not go to the north, but should stay in Paris, and should send the king's army to the north, to oppose the king's enemies.





# PHILOSOPHICAL CONFERENCES. PART II.

Monday, *November 6.* [REDACTED]

**F**Or Introduction to the Ensuing Conferences, it seems requisite that an Account be given of two things. I. Of what pass'd during the Vacation. II. Of some difficulties touching these Exercises.

As for the first; The Vacation was spent in the proposal and examination of divers Secrets and Curiosities of some Arts and Sciences, a few whereof shall be summarily mention'd in the order as they were propos'd; and most of which were found true by the persons appointed by the Company, to examine and make experiments of the same.

The First was a way to describe a Circle, of what greatness soever, without knowing the Centre of it, but supposing the Centre were inaccessible.

II. A way to make the Vernish of *China*, black and yellow, gilded.

III. To make a plain Looking-glass representing the objects upon its surface, and not inwards, as they usually appear.

IV. To make a Spherical Mirror, representing the Figures in their true proportion, and not corrupted, as they are in the vulgar ones.

V. To make one or more very conspicuous figures appear in the Air, by the help of a Concave Glasse.

VI. To cool Wine speedily in Summer, and to freeze water for that purpose.

VII. To decypher all common and decypherable Cyphers.

VIII. To give the Invention of almost a number of Cyphers, which cannot be decypher'd; as, among others, to write with a single point for each Letter: with two Books, in which no extraordinary mark is to be seen.

IX. To write with a Cypher, which may be read in two different Languages.

X. To comprise under a manifest sense an other hidden signification, as ample as the first.

R r

X I. To



X I. To write upon a body which will never perish, not even by Fire; at which alone it is to be read, and to answer thereunto by the same way, making the Letters disappear and return again at pleasure.

X II. A way of writing or impression, which represents all the properties of every thing, with as few Letters as the ordinary way of writing.

X III. A way to give intelligence in six hours at a hundred leagues distance, without Bells, Canons, or the like means.

X IV. A way to give intelligence in an instant of what is done at fifty leagues distance and more, and that of a sudden accident.

X V. A way whereby a person being in his Closet may make his Mind understood in a hundred places of the house, and receive answers by the same way without noise, and without notice taken thereof by those that shall be in his company.

X VI. To shew and teach the true Proportions of Mans Body, in one Lecture, as exactly as *Albert Durer* hath done.

X VII. To describe all Plat-forms, and designe all the orders of Columnes exactly, according to their true proportion.

X VIII. A way to engrave very easily with *Aqua Fortis*, without knowing how to hatch.

X IX. To cast Account without pen or counters, by a way which cannot be forgotten.

X X. To learn the method of Writing in one hour, by retaining onely three letters.

X X I. To keep Flowers, yea, a whole Garden, fresh, throughout the year.

X X II. To learn all the tricks and subtleties of Juglers, and consequently to cease admiring them.

X X III. To make two solid bodies actually cold, which being together shall become so hot of themselves immediately, as not to be touch'd; and to keep their heat for several moneths, and possibly for some years.

X X IV. To shew in a portable Instrument, in small or greater proportion, all objects that shall be presented.

X X V. To teach a Mother-language, of which all other Languages are Dialects, and may be learn'd by it: Which the Proposer affirms so easie, that he will teach the whole Grammar of it in six hours; but six moneths are requisite to learn the signification of all its words.

X X VI. To teach all persons to argue without error, in all kind of Modes and Figures, in a quarter of an hour.

X X VII. To shew a secret, by help whereof any man may pronounce any strange Language as naturally as his own, be it *Asiatick*, *African*, or *American*, and he an *European*; or, on the contrary; which is a way to remedy the bad Accents and pronuntiations both in strangers and natives, whereby they are so manifestly distinguish'd.

X X VIII. To



XXVIII. To make a Girder or Joist broken in two or three places, to serve without pins.

XXIX. To pierce a door immediately with a Candle not lighted.

XXX. To make a Pistol of a foot and half in length carry three hundred paces.

XXXI. To make a good quantity of fresh water speedily in the main Sea.

XXXII. To measure the depth of the Sea, where the plummet cannot reach, or where it is unperceivable.

XXXIII. To shew all the feats and subtleties that are perform'd with Cards, as to make the Card you think of come at what number is requir'd; to tell 15. persons, who have two Cards a piece, what Cards every one hath, &c.

XXXIV. To draw two lines, which being extended infinitely, shall always come nearer, but never meet.

XXXV. To make a light without Oyle, Wax, Tallow, Gum, or Fat, at small charge, which shall less offend the sight in a whole nights reading, then the light of an ordinary Candle doth in a quarter of an hour.

XXXVI. To make Glasses, through which the Sun doth not penetrate, though his light do.

XXXVII. To make old defac'd Characters legible.

XXXVIII. To continue under water for some hours without a Tube.

XXXIX. To make a Needle which shall always turn towards the North, though it were never touch'd with a Loadstone.

XL. To make a Fire without combustible matter, portable in any place whatsoever, fit to boile withall, and which will last many hundred years, yea, as long as the world.

XLI. To make a Mineral Tree, of a mixture of Metals, which shall grow in form of a Tree in a vessel of Glasse well clos'd.

XLII. To turn Iron into Steel and Copper, to keep it from rusting; and give it such a temper, that a complete sute of Armes of three quarters less weight then ordinary shall resist Musket-shot.

XLIII. To encrease a Man's Pulse so that he shall seem to have a Fever; and to diminish it so, that he shall seem a dying, yet both without prejudice to his health.

XLIV. Many Secrets were propos'd for the preservation of Health, and Cure of Diseases, the mentioning whereof I defer till experience shall be made of them; Credulity being not less excuseable, or more dangerous in any Art or Science, then in Physick; and therefore I am the more cautious and careful to publish none but certain things, and such as deserve to be communicated.

As for the second Point, which consists in the resolution of  
R r 2 some



some difficulties observ'd in the course of these Conferences ; 'tis true, they were not sooner publish'd but some took exception that there was not a choice made of some few persons to speak, any that seem'd of quality being admitted to declare their Sentiments ; because (said they) this diversity of minds, which is one of the wonders of the Universe, cannot but produce unpleasant discords and dissonances, sometimes prejudicial to the publick : or, at least, they advis'd to restrain their discourses to certain laws and modifications, and limit to a set space of time, which it should not be lawful for any to exceed : and this in order to remedy the itch of speaking, no less then of writing, in many who are so fond of being heard.

On the contrary, others lik'd nothing so much in this free commerce of wits as an unconfined liberty ; conceiving nothing more advantageous for the initiation of the young, the diversification of the old, and the honest recreation of all ; nor which more testifies to Posterity the generous proceeding of those that govern, diametrically opposite to the tyrannical slavery of some others, then this publick liberty afforded to every Gentleman to produce and speak what he thinks in these Conferences, regulated by the bounds prescrib'd by themselves, and so strictly observ'd, that the severest Censors of the most august Bodies, and Sovereign Courts, who are often present at them, have hitherto found nothing to disapprove therein ; the persons nominated by the Assembly to preside in the same, having comported themselves with such civility towards those to whom they signifi'd when it was time to cease speaking, that they have had abundant cause to be satisfi'd, and the Assembly taken more content in the diversity of the Speakers opinions, then if they had been all of one mind ; as the identity of many sounds do's not make harmony.

Afterwards some propounded that only two persons might speak upon a Question, one for the affirmative part, and the other for the Negative ; and in that, at most, a third might conciliate their different judgements in things wherein a third opinion might have place ; to the end the hearers might have no more to do but to assent to that which should seem best. But as this hath been practis'd sometimes, and may be continu'd in matters convenient for it ; so it seems unjust to others, to stop the mouths of the rest of the company, only for the hearing of two or three ; besides the tediousness of a long discourse ; whereas the multitude of concise verdicts resembles a Nose-gay diversifi'd with many Flowers of different colour and odour : besides that there are many subjects, concerning which so different judgements arise that the number thereof cannot be limited ; our Reason being so little captivated, that it finds out new paths every day to arrive at Truth which it goes to seek beyond the Imaginary spaces.

Some, to make these Conferences the more esteem'd, would have



have them held but once a moneth: others were so far from being weary of them, that they desir'd them every day. But to comply with both, it was thought expedient to hold them once a week.

Some desir'd to handle but one Question; others, more. Experience hath manifested, that the former course would be tedious, and the latter full of confusion, could the brevity of the time admit it.

The Points pitch'd upon at the last Conference to be treated in the next, were these.

## CONFERENCE LI.

- I. *At what time the Year ought to begin.* II. *Why the Load-stone draws Iron.*

Since the Year begins by a Moneth; the Moneth by a Day; the Day by an Hour; the Hour by a Minute; the Question seems to demand at what moment the Year ought to begin. A Year is a space of Time; Time is the duration of motion; the most perfect of motions is the local; the most excellent of local motions is the circular and celestial, which hath something of infinity. Now, to speak generally, a Year is the revolution of some celestial Orb, and takes its name from the spherical bodies which return to the same place from whence they departed. So the year of *Saturn*, is of 10955 days and twelve hours; that of *Jupiter*, of 4331 days, eighteen hours; that of *Mars*, of 687 days; that of the Sun, of 365 days, six hours, wanting eleven minutes; those of *Venus* and *Mercury* are almost like that of the Sun; that of the *Moon* is of about twenty nine days. But the longest year of all is that of the eighth Sphere, call'd the perfect or *Platonick* year, at the end of which all the Stars are to return to the same places and distances that they had at the Creation, which shall be accomplish'd, as the *Platonists* say, in 490000 Solar years, by vertue of the Septenary multiply'd seven times, according to the number of the seven other inferior Orbs; but more probably, according to *Alphonsus*, in 36000 years, considering that the eighth Sphere moves but one degree in a hundred years, and so in 36000 years pervades the 360 degrees of the Zodiack. The *Cynical* year of the *Egyptians* and *Babylonians* was measur'd by the course of the celestial *Dog*, or of *Orion*, and consisted of 1460 years. The *Sabbatical* year of the *Jews* was every seventh year; the *Jubilar*y, every fiftieth, in which they rested, and the Trumpets sounded. Which minds me of the Intermiſſion which this company made at its fiftieth Conference, after which the Trumpet animates us to a new Career. Now although civil years may be measur'd by the motion of any Cele-

I.  
At what  
time the year  
ought to be-  
gin.



Celestial Body whatsoever; yet the Sun and the Moon, the two grand Luminaries, have been by general consent taken to describe the year; one whereof is call'd Solar, being the interval during which the Sun running through the twelve Signes of the Zodiack comes again to the same point from whence he set forth; the other is *Lunar*, being the space of time in which the Moon is twelve times in conjunction with the Sun (for otherwise the Lunar year, properly taken, is but one moneth) which year is of 354 days, eight hours, and some minutes; by consequence less then the Solar by about eleven days, whereof the difference and reduction is call'd the *Epact*. So that it must be known, in the first place, of what year the Question is to be understood. For if the Solar year be meant (as it seems to be) it must begin by the minute in which the Sun enters the first point of the *Ram*, who is for that reason said to open the year with his horns.

The Second said, The Year is a Circle, for that cause hieroglyphically represented under the figure of a Serpent biting his own tail; and nam'd by the Greeks *Eniautos*, that is to say, *In it self*, and by the Hebrews *Schanah*, which signifies *Reiteration*. As therefore there is neither beginning nor end in a circle, so neither is there properly in a year, each moment whereof may be its beginning and its end. Yet God's command to the Jews to begin the year with the moneth of *March*, joyn'd to the probability that the world was then created, would make me to begin it so, had not Christians more reason to begin theirs by the day on which they receiv'd their most signal benefits from the hand of God, namely, our Saviours Nativity. Yet not by *Christmas* day, but on that of the Circumcision, on which the Son of God began to effect the mystery of our Redemption by the effusion of his blood; as the same Christians compute their years, not from the Creation of the World, but from the Mystery of the Incarnation.

The Third said, There are six terms, by which we may commence the year; namely the *Apogæum*, and *Perigæum*, of the Sun, the two *Solstices*, and the two *Æquinoxes*. The two first cannot be proper for it, because they are not fix'd points, but moveable according to the trepidation of the Firmament. Nor the *Solstices*, since they are different according to the several Nations. For our Summer *Solstice* is the Winter *Solstice* to our Antipodes, who dwell in the Southern temperate *Zone*; and, on the contrary, our Winter *Solstice* is their Summer *Solstice*. It follows then that the year must be begun by that of the *Æquinoxes*, in which the Sun first mov'd at the Creation, being the Spring-time, in which the earth, according to God's command, produc'd the Germen or tender Grass, and green Herb. And this likewise is the time when the State of Heaven is such that the Astrologers make their surest Predictions from it of the whole constitution of the year ensuing.

The Fourth said, That the year may with more reason be begun



gun at Autumn, as being rather the Season when the world was created, for that the Trees are at this time laden with fruit; and God was no less provident to prepare food for man then he is for children new born, to whom their mothers no sooner give life but they have nourishment ready for them in their breasts.

The Fifth said, That being the *Æquinoxes* and Seasons of the Year happen not always at the same time in respect of all people, they cannot be a general rule for the beginning of the year, which 'twere more expedient to refer to the moment of the Creation. But because only he that knows the end of it knows the beginning of it, there remains nothing to men but light conjectures: The fruits which appear'd upon the Trees concluding no more necessarily for Autumn then the tender Grass of the earth for the Spring, or the nakedness of our first Parent for Summer, and the sterility of the earth immediately after his sin, for Winter. Yea, were the instant of the Creation known to us, we should be still in doubt, whether to begin the year from the day of the Creation which was Sunday, or from the fourth day which is Wednesday, on which the Sun and Moon were created; since the year depends upon their Revolution; or lastly, from the sixth which is Fryday, on which *Adam* was created, who alone was capable among all creatures to compute their motions. I should therefore judge it best to take the *Apogæum* of the Sun, or the moment wherein he is most elevated above the earth, as the most noble and eminent place in which he is found during the whole course of the year, being then as in his throne, from whence he makes himself conspicuous to all the world; rather then in any other place of Heaven, and consequently may then better serve for a signal of the end of one year and the beginning of another. And although the years would not be perfectly equal in duration, yet the difference would be but small, and they would be computed by all men after the same sort, which is the thing requir'd.

The Sixth said, The commencement of the year is as various as that of the day; which the *Persians* and *Babylonians* began at the rising of the Sun, the *Arabians* from one Noon to another, as the Astrologers still do, to find the Houses of the Sun and other Planets: the Jews, from Sun-set, or from one evening to another, according to what is said in *Genesis*, that the Evening and the Morning were one day; which way of counting the hours is still practis'd in *Italy*, *Bohemia* and *Silesia*. The remainder of Christians reckon their day from one mid-night to another; because the night was before the day, as we read, in *Genesis*, that in the beginning darkness cover'd the face of the deep; but chiefly because our Lord was born at mid-night. So that 'tis an indifferent thing both where the natural day be begun, provided its revolution be always of twenty four hours; and where each people begins the Solar year, provided they agree upon



upon the revolution of the Sun, and end it at the same point where they began it.

The Seventh said, Although nothing be more certain then the measure of the Sun's course, composing the Astronomical year, which is divided into Conversional or Tropical, and Syderal. Yet being this course is not concluded in an intire number of moneths, days, nor yet of hours (for some minutes must be added to it) hence ariseth the difficulty to regulate the years; the confusion whereof has been encreas'd by the divers political and civil years establish'd by Legislators who have endeavour'd to comply in this point with the vulgar, which likes nothing but what is intire and easie to comprehend. *Romulus* began his year at the Vernal Æquinox, and compos'd it of 304 days divided into ten moneths. *Numa* observing that the course of the Sun, and the Lunations did no agree, and that the cold weather was often found in Summer, and Harvest in Winter, added *January* and *February* to it. The progress of time having shewn that this reformation was still imperfect, *Julius Cæsar*, 670 years after him, assisted by *Sosigenes* a great Mathematician, corrected the defect, adding three moneths to the year in which he made this rectification, which was the 708th year of the building of *Rome*; namely, two moneths between *November* and *December*, one of 29 days and the other of 30: and another of 30 days at the end of *December*, to make up the days which were pass'd. So that this year Debtors had three moneths respite. Then he divided the year into 365 days, for this cause call'd from his name the *Julian* year. But because the Sun is neer six hours more in accomplishing his Period, he added a day every fourth year after the twenty third of *February* which they call'd *Sexto Calendas*, and because in counting it twice they said *bis sexto Calendas*, this year truth thence retain'd the name of *Bissextile*, attributed by the vulgar to sinister and unfortunate things. And to confirm the moneths to the Lunations, he was contented to observe that every nineteenth year the Moon is found in the same place; which was the discovery of another Mathematician of *Athens* nam'd *Meton*. And forasmuch as they mark'd this number of 19 in their Kalendar with a Cypher of gold, thence it came to be call'd the *Golden Number*. The Christians took up this Calculation as the best of all. But because there wants eleven minutes every fourth year to make the *Bissextile* or *Leap-year* intire, it was found that from the time of *Julius Cæsar* to *Gregory XIII.* the Lunations and Æquinoxes had anticipated ten days, which render'd the *Golden Number* useless, and remov'd *Easter* and other moveable Feasts out of their true place. Therefore this Pope, assisted by Doctor *Lilio* a Physitian, retrench'd those ten days throughout all Christendom, except in places who are not pleas'd with novelty, unless so far as it displeases the Pope. Which anticipation will always oblige future Ages to use a like reformation of the *Julian* year;



year ; which we begin from the mid-night which precedes the first Sun-rise of the moneth of *January*. But the most sensible knowledge to be had of the duration and beginning of the Solar year is obtain'd by observing the day on which the shadow of the perpendicular needle of a Quadrant is found longest at noon, being a certain sign that the Sun is then most depress'd, and consequently that we must there set down the end of the preceding year and the beginning of the next, which is visible by the exaltation of the Sun, whose shadow will not be found equal again till after the revolution of a just year.

Had Stones life, as *Cardan* held, the solution of the second Question would be easie. For the Load-stone's drawing Iron would be no more a wonder then an Animal's going to seek its food. Now of those things which draw others, some do it for eschewing of vacuity : so water and other more ponderous bodies ascend, air and other light bodies descend, either of them against its proper inclination, to prevent a *vacuum*. Others do it, out of desire to obtain what they need, as their nourishment. So Plants attract the juice of the earth ; the Gall-bladder, Choler ; the Splene, the Melancholy humour ; and every part, blood. Others do it by the mutual resemblance of the spirits issuing out of them ; such is the first motion of affection arising between two persons of the same humour and inclination. But others are mov'd locally without any manifest and corporeal cause ; so are the vapours and the dew drawn up by the Sun ; straw by Amber ; the womb by good smells ; the Load-stone by the North-star, the Heliotrope and Selenotrope by the Sun and the Moon, whose motions they follow. Now in attraction, it is requisite that the attractive vertue be stronger then the resistance of the body which is attracted. The greatest resistance is from the ponderosity of a body ; the elevation of which without manifest cause is accounted miraculous, and attributed by Divines to the Divine Power alone ; as when our Lord walk'd upon the water. And so indeed would be the suspension of the gravity of iron attracted by the Load-stone, if it were not ordinary : the cause whereof may be ascrib'd to the meeting of spirits streaming out of the Iron and the Load-stone ; which being viscous and once joyn'd together are somewhat hard to be separated.

II.  
*Why the  
Load-stone  
draws Iron.*

The Second said, That as every body diffuses about it visible, odorable, and sonorous species, which appear not to us, unless they be reflected by some body proper to unite them ; the visible species, by a Glass ; odours by heat ; sound, by a hollow body, such as makes the Echo : In like manner, the Load-stone and the Iron emit attractive species round about, which are lost, unless these of the one light upon those of the other ; for then their nature is, so to conjoyn themselves that their union is indissoluble otherwise then by violence : wherein there seems to be no greater marvel then in all other motions of natural bodies,

St

which



which act variously one upon another according to the disposition of the next matter. So the fire acts upon combustible matter, and not upon other; the reason of these affects depending upon the determination of every particular cause, the chain whereof is invisible and conceal'd from men.

The Third said, The Superior bodies act upon the inferior, and all motions here below proceed from those of the Celestial Bodies, which are therefore purposely contiguous. That of the Load-stone and Iron proceeds from the polar Stars, which act so sensibly upon this Stone, that being hung up in *æquilibrio*, it spontaneously turns one part towards the Arctick, and the other towards the Antarctick Pole; unless in certain places where it varies between five and six degrees, because 'tis drawn by a stronger magnetick virtue proceeding from the Earth. But this Stone draws Iron the more easily, because 'tis almost of the same nature with it self; and the Magnet is easily turn'd into Iron in the Mines by a coction made by the virtue of the same stars. For the like things are, the more inclin'd they are to unite together; so Flame unites with Flame, the drops of water joyn together, a great Load-stone draws the less, and Steel attracts the filings of steel.

The Fourth said, As there is a civil converse between men, for preservation of society, so there is a natural one establish'd by God amongst the other creatures, for the support of their common being, consisting chiefly in their being mov'd one towards another: Fire attracts unctuous exhalations, and it self tends towards the Etherial fire, the Air is drawn by the Lungs, the Sea is drawn up by the Moon, which causes its ebbing and flowing; straw and dust by the Agate, Iron by the Load-stone; the virtue whereof, together with the occult properties of all other bodies, I attribute to that universal Spirit which carries every entity to its particular good.

The Fifth said, If we would understand the causes of the motion, we must first discover their nature, which is the principle of motion. Now the particular nature of every thing is unknown to all men, as well as the proportion of the mixture of their substances, whereon their occult properties depend, as the manifest qualities do on the mixtion of their first qualities; which we are wont to call manifest, not but that the reason of them is as difficult as of the rest, but because they are more ordinary. Which indeed has caus'd us to give them the name, e. g. of lightness to the fire, heaviness to the earth, though no person has hitherto assign'd the cause thereof. Give but a name to this quality which the Iron hath of moving towards the Load-stone, it will be as manifest as the motive virtue which carries a stone towards its centre. We may indeed alledge the final cause of both, and say, in general, that 'tis the good of the thing mov'd that sets it in motion, or, on the contrary, the good of the thing whereunto it tends that moves and attracts it:



it, but the formal cause, which we here inquire, is equally unknown.

The Sixth said, That Iron is carri'd to the Load-stone as to its good, and as the stone to its centre; and hence it is that the Iron turns towards the North, which is the native place of the Magnet. For being a natural, not a violent motion, the motive faculty must be in the Iron, which moves it self; the goodness of the object attracting only by a metaphorical motion, which supposes a motive faculty in the thing mov'd.

## CONFERENCE LII.

I. *Of a Point.* II. *Whether other Animals besides Man have the use of Reason.*

IF it be true that there are more wonders in a Hand-worm I then in an Elephant, because all the faculties which are extended and have their manifest causes and instruments in the latter; are found compendiously Epitomiz'd in the former, and (as it were) independent of their organs; there will be more wonders in a Point than in all the rest of the bodies which are compos'd of it. Indeed there's nothing so small as a Point, and yet 'tis the object of most Sciences. Grammar treats of the Point of distinction; Natural Philosophy, of the Point of reflection, and that which serves for the Centre of the Earth; Astrology of the vertical points, Zenith and Nadir, and makes use of them to compute the motions of the Celestial Bodies. Geography hath its four Cardinal Points. All Sciences and Arts borrow this word, to give some order to the things whereof they treat. Lastly, it serves for a principle to Geometry which begins its first Propositions with it. And because, if we believe *Plato*, every beginning is divine; a Point which is the principle of a line (as this is of a surface, this of a body; an instant, of time; and an unite, of number) hath something of Divinity; which *Trismegistus*, for that reason, calls a Centre or Point, whose Circumference is no where; and therefore they who hear us speak of a Point must not think that it is of an inconsiderable matter.

I.  
*Of a Point.*

The Second said, Although much is not to be argu'd from our manner of speaking, in which the word *Point* (with us French) signifies a negation; yet it seems to imply, that if it be something, it wants but little of being nothing. For to speak truth, a Point is the mean which is found between nothing and something. 'Tis not an accident; for it doth not betide, befall or arrive to a substance, but is before, and inseparable from the same. Nor is it a substance, since a substance is infinitely divisible, but a Point is that which hath no parts, that is to say, is in-



divisible. We cannot compare it to an instant in respect of time, for the time past hath been instant or present, and the future shall be so; but a Point is not, and never shall be, a quantity, nor to a Unite, in regard of Number; since Number is made of Unites, and an Unite added to the greatest number whatever renders the same yet greater; whereas a hundred Millions of of Points together make but a Point, because that which hath no quantity of it self cannot give any. Nevertheless 'tis most probable that a Point exists really, since 'tis the foundation of all other quantities; and two Spheres exactly round touch one another but in a Point.

The Third said, As there is no mean between contradictories, so neither can there be any between nothing and something, Entity and Non-entity. Now a Point being the term of a line, and every where in it, must consequently be some thing. Yea I maintain that it is a body and divisible, by this argument. One sole Being is not finite, to wit, the Creator; all others, to wit, the Creatures, and every part of them, are finite. Every finite thing is compos'd of parts, being compos'd of ends or extremities, and a middle. For it would be as ridiculous to say that a thing is finite with out ends, as to say that a thing is long without length, or hot without heat. A mathematical point is a finite thing. Therefore 'tis compos'd of parts. To say that it is finite *negatively*, and not *positively*, cannot hold. For as every mensurable solid is compos'd of and terminated by Mathematical surfaces, these by lines, and lines by points; so a point is compos'd of and terminated by its ends, which are its parts and extremities: these again being compos'd of parts external and internal, are also finite, and consequently divisible to infinity. Therefore a Point is not finite by negation, which is nothing, since nothing is not the term of a Point. Neither is it terminated by it self, since every thing is bounded by some term which is without it; and if nothing cannot measure it self, much less can it bound or perfect it self. For 'tis so true, that every solid, how small soever, is divisible to infinity, that the Naturalists maintain that if by Divine Omnipotence (Humane and Angelical power being too short) a grain of Millet should be divided into a hundred millions of parts every moment from the Creation to the end of the World, the progression would never come to an Indivisible Point. This is justifi'd by the Section of a Circle or Globe. For if the Diameter of a Circle be divided into two equal parts, the Centre of it, which is a point, will be semblably into two equal parts; for it must not be all on one side; otherwise the division would be unequal; nor must it be turn'd into nothing since 'tis not possible for any thing to be annihilated naturally. But if those two Semidiametres were re-united as at first, the two parts of the divided Point would be rejoyn'd into one point which would make the Centre again. In like manner if a Globe perfectly round touch'd a perfect plain, all agree that it would be

in



in a Mathematical point, which is not indivisible. For the point of the plain hath parts, since it hath all the situations of place whereunto parts answer, namely before, behind, above, below, right and left; and the point of the Globe touches the point of the plain in the upper part; now that which hath an upper part hath also an under part. Moreover, every point is part of the body in which it inheres; for a Part is one finite thing united to another, composing the whole with the other parts together. But the point of the Globe is such; else it must be said that the surface of the Globe is no part of it. Seeing there is the same proportion between a point and a line, a line and a surface, as there is between a surface and a body; and that when a Globe rould upon many points, it rould also upon the surface, which therefore differs not from them but by More and Less. Whence it follows that a Mathematical point is a small term of quantity, uniting and terminating Mathematical lines without length, breadth and depth mensurable and consequently a body. For it is compos'd of parts irrational and inexpressible; that is, which the Mathematician cannot tell how long, broad and deep, they are.

The Fourth said, Nature has hid the highest mysteries in the lowest, and seemingly vilest things; which also are hardest to be understood; not so much through imperfection of essence; for an atome flying in the air is as true an essence as the whole earth: But because our senses perceive only such objects as are able to excite a motion in the Organs; now a Point cannot do this, and so the Intellect which judges of things by the species receiv'd, cannot receive those of a Point, nor consequently have perfect knowledge of it. Therefore the Philosopher defines not a point By what it is, but By what it is not, when he saith that a Point is something imperceptible inherent in the *Continuum*. Yet this knowledge of a point by negation, is not by negation of essence but of divisibility, it being of its own nature an indivisible entity. For if it can be divided into other parts, 'tis no longer a point, 'tis a line, and must be so term'd how small soever it be. Essence not finite is incommunicable to the Creator, being a perfection of immense grandeur; yet a Point may be of an essence not finite too, because such essence is in a Point an imperfection, and privation of greatness. Moreover, a Point is either continuant or terminant; each of which is nothing but a mode of being, a respect and correspondence of parts one to another; which consequently may be produc'd and annihilated without miracle, as modes, forms, and figures are. For supposing a Globe exactly divided into two parts, there's no more inconvenience in saying that the Central point is perish'd, then that when a ball of Wax is press'd flat, the Spherical figure ceases to be.

The Fifth said, That as in the Creation natural bodies were made of nothing, so the production of Mathematical bodies begins



gins by a Point which is a nothing : And (indeed) a Point is so far from being demonstrated a reality by the application of a Globe upon a Plain, which cannot touch one the other but by a line, that the most slender and imperceptible point of a Needle falling perpendicularly upon the most polish'd steel, yea (if 'twere possible) upon as small a point of another Needle, cannot touch one another but by the surface of their body : Whence it appears that a Mathematical Point is infinitely less than any material point whatsoever, which only represents the figure thereof grossly to our senses.

II.  
Whether  
Brutes have  
Reason.

The second Point was prefac'd with the consideration of the difficulty of a fair discussion, because men are parties ; and none is competent to determine the question but either he that is above both man and beast, or equally participates of both : it being as likely in the general cause, as 'tis usual in all particular, that men will arrogate the advantage to their own species. Yet man's dominion over beasts, the conformation of his body, the operations of his mind, and the works of both compar'd to those of other animals, seem to decide the question. For man alone knows, not only God, and the other creatures, but also himself, by a reflection of the Understanding, which is the highest act of Reason. His body alone is shap'd so that his eyes are erected towards heaven, his members are flexible and versatile, especially his hand (the organ of organs ; ) he sits down most commodiously and gracefully at the exercising of all Arts ; and his manifold artificial productions, perfecting and surpassing those of nature, find nothing comparable to them amongst those of other animals. And therefore I adhere to the Holy Scripture, which denies understanding to beasts ; and to what antiquity, especially Philosophy, determines, which hath found no more peculiar difference whereby to distinguish man from beast than Reason.

The Second said, Since Reason is the hand of Judgement, as the speech is of Reason, and the hand it self is the instrument subservient to speech ; one of these degrees must lead us to the knowledge of the other. I mean, that since Reason is the hand of the Judgement, such animals as shall be found to have judgement can no more be without Reason than a man naturally without a hand. Now all are constrain'd to acknowledge some judgement in animals, for otherwise they could not exercise the functions of their external and internal senses, which divers have in a more eminent degree than we. They have a *Common Sense* ; for they distinguish the objects of the senses ; a Phancy, since they are all equally lead to sensible good ; many of them are indu'd with memory, as Dogs and Horses, which bark and neigh in their sleep ; which cannot be done but by some higher faculty, uniting and enjoyning the species drawn out of their memory : an effect not possible to proceed from any other cause than Reason. But that which removes all scruple, is, that they are capable of discipline ; and there's



there's no feat of activity but they learn it sooner than Man; witness the Elephants which danc'd upon the rope at *Rome*, and the Goats which do as much here at this time; not to mention Dogs, Horses, Apes, and other Creatures which are manag'd, and Birds which are taught to speak.

The Third confirm'd this Opinion by the Example of the Elephant, who before the Tinker was paid, try'd whether the kettle (wherein he us'd to have his food) was well mended by filling it with water; of the Ox, who never drew up above a certain number of buckets of water; of the Fox, who caus'd the water in a pitcher to ascend by filling it with stones, and always layes his Ear to a frozen river, to hear whether the water moves under the Ice, before he trusts himself upon it; of the Dog, who having scented two paths, casts himself into the third without Smelling at all, and concludes that the tract of his game; of the Cat, which although hungry dares not eat the meat she sees, for fear of the whip which she sees not. All which he said were so many Syllogismes, and concluded with an induction of sundry Animals, which gave Man the knowledge of building, as the Swallow; of spinning, as the Spider; of hoarding provisions, as the Pismire, to whose School *Solomon* sends the sluggard; of presaging fair weather, as the Kings-fisher; the downfall of houses, as Rats and Mice; of making Clysters, as the *Ibis*; of letting blood, as the *Hippopotamus*, or Sea-horse; That to accuse our Masters of want of Reason, is an act of notorious ingratitude.

The Fourth said, Faculties are discover'd by their actions, and these are determin'd by their end. Now the actions of Men and beasts are alike, and have the same End, Good, Profitable, Delightful, or Honest. There is no Controversie concerning the two former. And Honesty, which consists in the exercise of Virtue, they have in an eminent degree. Witness the courage of the Lyon, in whom this Virtue is not produc'd by vanity or interest, as it is in men. Nor was it ever seen that Lyons became servants to other Lyons; (as we see Men are to one another for want of courage) which prefers a thousand deaths before servitude. Their Temperance and Continence is apparent, in that they are contented with pleasures lawful and necessary, not resembling the disorderly Appetites of Men, who not contented with one sort of food depopulate the Air, the Earth, and the Waters, rather to provoke then satiate their gluttony. The fidelity of the Turtle, and the Chastity of the Dove, are such as have serv'd for a Comparison, in the Canticles, of the Spouse. The fidelity of the Dog to his Master exceeds that of Men. The Raven is so Continent, that 'tis observ'd to live 600. years without a Male, if her own happen to be kill'd. For their good Constitution gives them so long a life, which in Men Nature or their own disorders terminate within a few years. As for Justice, the foundation of all Humane Laws is the Natural, which is common to beasts with Men. The



The Fifth said, Reason is a proportion, correspondence, and adujstment, of two or more things compar'd one with another; whence it follows that being Comparison cannot be made but by Man, he alone is capable of Reason. Moreover, he alone exercises Justice, which is nothing else but the same reason which he judges to every one, under which is comprehended Religion, a thing unknown to brutes; when Prudence, Fortitude, and Temperance, are improperly attributed, because these are habits of the Will, (which Faculty brutes have not) and presuppose a knowledge (which they want too) of the vicious Extremes of every of their actions.

The Sixth said, 'Twas not without Reason that the first Age of Innocence, and afterwards *Pythagoras*, upon the account of his Metempsychosis, spar'd the lives of beasts; that when God sav'd but four couple of all Mankind from the deluge, he preserv'd seven of every clean Animal, and made the Angel which withstood the Prophet *Balaam* rather visible to his Ass then to him; that this Animal, and the Ox, (whose acknowledgement towards their Masters is alledg'd by *Isaiah*, to exprobate to the Israelites their ingratitude towards God) were the first witnesses of our Saviours Birth, who commands to be innocent and prudent, like some of them. Which presupposes not onely Reason in them, but that they have more thereof then Man, with what ever cavillation he may disguise their virtues; saying, that what is Knowledge in God, Intelligence in Angels, Reason in Man, Inclination in Inanimate Bodies, is Instinct in brutes. For since a beast attaines to his End better then Man, and is not so subject to change as he, it may seem that a nobler name should be given to that Faculty which accomplisheth its work best, then to that is for the most part deficient therein. And therefore either a brute hath more reason then Man, or that which Man calls Instinct in a beast is more excellent then his Reason, a Faculty ordinarily faulty, subject to surprize and to be surpriz'd.

The Seventh said, 'Tis too rustick an impiety (to use Saint *Austine's* words against the *Manichees*, who inclin'd to this Error) to believe that beasts have Reason, since they have not a perfect use of all the outward Senses, but onely of such as are altogether necessary to their being, Touching, and Tasting: For Smells, Sounds, and Colours, move them not, further then the same are serviceable to those two senses. Nor must we deceive ourselves by their having a Phancy or Inferior Judgement; so long as they have nothing of that Divine Piece by which Man knows Universals, defines, composes, and divides, comprehends similitudes and dissimilitudes with their causes. They have an Appetite too, by which they are carry'd towards their proper Good. But because their knowledge of this Good is neither sufficient nor intire as that of Man is, who alone knows Good as Good, the End as such; this Appetite is rul'd and guided by a superior cause, (as a Ship by the Pilot) which cause necessarily leads



leads this Appetite to good, as it also inclines the stone to its centre, which it never fails to find. So that this infallibility alledg'd in the works of brutes is rather a sign of their want of Reason, which is the cause that Man endued with sufficient knowledge, and for this reason plac'd between Good and Evil, Fire and Water, can alone freely move towards the one or the other; whence it comes to pass that he frequently fails in his purposes, because his Reason oftentimes takes appearance for truth.

CONFERENCE LIII.

I. *Whether there be more than five Senses.*

II. *Whether is better, to speak,  
or to be silent.*

THE Maxime, That things are not to be multipli'd without Reason, is founded upon the capacity of the Humane Mind, which being one, though its faculties be distinct in their Operations, conceives things onely under the species of unity. So that when there are many in number, it makes one species of them; of many specifically different, one Genus; and, consequently, can much less suffer the making two things of that which is but one. This has given ground to some to affirm, That there is but one External Sense, which ought no more to be distributed into five species under pretext that there are five Organs, then one and the same River which here makes bellows blow, and hammers beat, presses cloth, and decorticates oats, or grinds flour; For 'tis one breath which passing through several Organes and Pipes renders several tones; one and the same Sun, which penetrating through various glasses represents as many colours. Moreover, their end is to all the same, namely, to avoid what may hurt, and pursue what may profit the Creature.

The Second said, This would be true, if the Soul alone were the subject of Sensation; but when the Eye is pull'd out, although the visual spirits remain entire; or if the Eye being found and clear, yet some obstruction hinders the afflux of the spirits to it, (as in a *Gutta Serena*) there is no vision made: An Evidence that seeing is an action of both, and, consequently, the Senses are as many as the several Organs which determine and specificate the same. But the Taste being comprehended under the Touch, by the Philosophers definition, must be a species thereof; and therefore there are but four Senses, as four Elements, the Taste and the Touch (which it comprehends) being exercis'd in the earth gross as themselves; the Sight in

T t

Water,

I.  
*Whether  
there be more  
than five  
Senses.*



Water, in which its Organ swims, and of which it almost wholly consists; the Smelling by the Fire, which awakens odours, and reduces them out of power into act; and the Hearing, in the Air, which is found naturally implanted in the Ear, and is the sole *medium* of this sense, according to *Aristotle*; the hearing of Fishes being particular to them in the Water, and very obscure.

The Third said, He was of *Scaliger's* mind, who reckons Titillation for the sixth sense. For if the Taste, though comprehended under the Touching, (as was said) constitutes a distinct sense, why not Titillation, which is a species of Touching too; considering that it represents things otherwise than the ordinary Touch doth, and hath its particular Organs, as the soles of the Feet, the palms of the Hands, the Flanks, the Arm-pits, and some other places. Yea, Touching may be accounted the Genus of the Senses, since all partake thereof.

The Fourth said, That those actions which some Animals perform more perfectly than we, (as the Dog exceeds us in Smelling, the Spider in Touching, the Eagle in Seeing, and many in presaging the seasons and weather) seem'd to be the effects of 6, 7, or 8 Senses; there being no proportion between such great extraordinary effects and their Organs, the structure whereof is the same with those of other Animals, which come not near the same. Yea, that 'tis by some supernumerary sense found in each Animal, that they have knowledge of what is serviceable or hurtful to them in particular. For example, who teaches the Dog the virtue of Grass, the Hart of Dittany? their ordinary Senses cannot. Nor is it likely that so many occult properties have been produc'd by Nature, to remain unknown. But they cannot be understood unless by some Sense which is not vulgar, considering that all the Senses together understand not their substance.

The Fifth said, There are five external Senses, neither more, nor less; because there needs so many and no more, to perceive and apprehend all external objects: And as when one of our Senses is deprav'd or abolish'd, another cannot repair it, nor succeed it in all its functions; so if there were more than five, the over-plus would be useless, there being no accident but falls under the cognisance of these five Senses: And although each of them is not sufficient thereunto severally, yet they serve well enough all together; as in the perception of motion, rest, number, magnitude, and figure, which are common objects to divers Senses. Now if there were need of more than five Senses, 'twould be to judge of objects wherein the others fail. So that the supernumeraries being unprofitable, 'tis not necessary to establish more than five. And as for substance, 'tis not consistent with its Nature to be known by the external Senses.

The Sixth said, Man being compos'd of three Pieces, a Soul, a Body, and Spirits of a middle Nature between both; the five  
Senses



Senses suffice to the perfection and support of these three parts. Knowledge, which is the sole Good of the Soul, is acquir'd by invention and discipline ; for which we have Eyes and Ears. Good Odours recreate and repair the Spirits. The Touch and Taste are the Bodie's guards, the first by preserving it from hurtfull qualities which invade it from without ; and the second, from such as enter and are taken in by the mouth. And therefore 'tis in vain to establish more.

The Seventh said, Since, according to the Philosophers, Sense is a passive quality, and Sensation is made when the Organ is alter'd by the object ; there must be as many several Senses as there are different objects, which variously alter the Organs. Now amongst Colours, Odours, and other sensible objects, there are many different species ; and the qualities perceiv'd by the Touch are almost infinite. Nor is it material to say that they all proceed from the first qualities, since Colors, Odours, and Tasts, are likewise second qualities arising from those first, and nevertheless make different Senses.

The Eighth said, Although it be true, that Faculties are determin'd by objects, yet must not these Faculties be therefore multiply'd according to the multitude of objects. So, though White and Black are different, nevertheless because they both act after the same manner, namely, by sending their intentional species through the same *medium*, to the same Organ, the Sight alone sufficeth for judging of their difference.

The Ninth said, Since four things are requisite to Sensation, to wit, the Faculty, the Organ, the *Medium*, and the Object ; 'tis by them that the number of Senses is determin'd. The Object cannot do it, otherwise there would not be five Senses, but infinitely more. Nor can the Faculty do it, being inseparable from the Soul, or rather the Soul it self, and consequently but one ; and to say that there is but one Sense, is erroneously to make an external Sense of the Common Sense. Much less can the *Medium* do it, since one and the same *Medium* serves to many Senses, and one and the same Sense is exercis'd in several *Mediums*, as the Sight in the Air and the Water. It remains therefore that the diversity proceed from that of the Organs, which being but five, make the like number of Senses.

Upon the Second Point it was said, 'Tis a greater difficulty, and consequently more a virtue, to hold one's peace than to speak ; the latter being natural to Man, and very easie, when he has once got the habit of it ; but the former is a constrain'd Action, and to practise which handsomely the Mind must be disciplin'd to do violence to the itch of declaring it self ; every one conceiving it his interest that the truth be known. And there are fewer examples of those that have sav'd themselves by speaking, than of those that have lost themselves by not keeping Secrecie ; justly term'd the Soul of the State and of affairs, which

II.

Whether is  
better, to be  
silent or to  
speak.



once vented, of easie become impossible. Whence arose the name of Secretaries for principal Ministers and Officers of States and great Houses; and indeed, 'tis at this day a title affected by the meanest Clerks, testifying thereby in what esteem they have Silence. And the unworthiest of all Vices, Treachery, ordinarily takes advantage of this defect of Secrecie, which renders Men full of chinks, and like a sieve, so that many can more easily keep a coal in their mouths than a secret. On the contrary, Silence is so much reverenc'd, that the wisest persons, when they are to speak or write, come the nearest it they can by their brevity; and that upon this account the fool, so long as he holds his peace, differs not from the wise. Therefore *Pythagoras* made it the chief point of his Philosophy, leaving his Scholars for five years to do nothing else but hear, and abstain from eating fish, out of the particular esteem he had thereof for its taciturnity. All Monastick persons account it one of their highest virtues, and the introduction to all others; and the *Pagans* made a God of Silence, nam'd *Harpocrates*, whose Statue held a finger upon its mouth. And both the sacrifices of this god and all their other mysteries, (which word implyes Secrecie) were perform'd without speaking. Therefore *Alexander* meaning to teach *Hephestion*, that he that would serve his King well must know well how to be silent, clap'd the seal of his Ring upon his lips. The greatest talkers are commonly the least actors; God having as 'twere put in balance words on one side, and effects on the other, as the leaves and flowers there, and the fruits here.

The Second said, As the corruption of things is the greater by how much the more excellent they are; so speech being the fairest ornament of Man, the abuse thereof is the most dangerous; and the rather, for that too much speaking is an incurable malady, since it cannot be cur'd but by the counsel of those that reprehend it, whereof great speakers are incapable, it being their custome not to hear any body. In requital for which they are avoided by all the world. For every Man thinks himself concern'd to uphold the truth, and is therefore displeas'd when he meets one that would arrogate this right to himself, and frustrate all others of the glory which follows that action. But, which is worse, no credit is given to them, although belief is the end of speech. For Man affects nothing so much as to be esteem'd true and honest, because the perfection of his being consists in these two points) and therefore he employes his utmost endeavours to make himself believ'd such; whereas a babler finding no belief amongst Men, and goodness and truth walking with the same foot, he is accounted to have neither the one nor the other. Indeed great speakers are ordinarily great lyers; because words are not true but so far as they are weigh'd and balanc'd in the Mind, which being finite cannot know many things at once, but successively and with time, which the talker allows not to himself. And as Truth is in Unity, so is Lying in Multiplicity, but



but especially in confusion, which is a diversity without order, and is almost inseparable from great discourses, and produces the like in the Minds of the Hearers, and consequently unbeliefs.

The Third said, A Man should take no greater care then to govern his Tongue, because 'tis a member the easiest mov'd, and never weary. Hence old men are so much delighted with talking, because they have onely this member at their devotion. Which Nature fore-seeing, and that Man would have frequent and long use of it, hath given it a strong Ligament, ten Muscles, and three couple of the seven pair of Nerves, which are diffus'd through the rest of the Body. Besides, Man being a sociable Animal, is naturally much inclin'd to discourse, which is the bond of humane society. 'Tis requisite therefore that Reason, which should govern all Man's inclinations, govern this of speech chiefly, to which she ought not give liberty except when the same may be beneficial to the speaker, or to the hearer, or to some other. Nevertheless, (to speak generally) as action is more noble then Privation, and Motion then Rest; so to speak is a thing more excellent then to hold one's peace.

The Fourth said, The moderation of speech, call'd Taciturnity, is a species of Temperance, and hath its two extremes equally vicious; namely, immoderate talking, and dull silence, when one holds his peace, although a just cause obliges him to speak, as the acknowledgement of a truth, or of some benefit; and when our own interest or friends is considerably engag'd, or also when an occasion makes some discourse to be expected from us, as in a publick assembly, feast, or other place of rejoicing, in which case silence is no less shameful, then too much speaking is every where distasteful. This Virtue, which holds the middle, shews where, when, how, how much, we ought to speak and be silent; what things are fit to be spoken, and to what persons. As for things, they must be true, honest, and approved by us within, before they are expos'd and lay'd abroad; the Tongue must follow, and not go before the Mind, whose interpreter it is, as the Hand is the Tongue's Secretary, and for this purpose is lay'd upon the Heart, out of whose abundance it alwayes speaks; unless dissimulation alter the case. And as the constitution and temper of the Tongue, it is taken by Physicians for a certain signe of that of the internal parts; so the words are of the inclinations and habits of the Soul, which has its throne in the Tongue to make it self understood, as in the Eyes to render it self visible. Now the Tongue, being the principal Organ of speech, hereby serves to put a manifest discrimination between Man and brutes; some of which make a sound, as Grasshoppers; others have a voice, as all those that have Lungs, but none have speech. As for other circumstances, we must refrain as much as possible from speaking with fools, or wicked persons notoriously known such, and a little before persons



sons of age and authority, or who understand more then our selves; as also from speaking of a serious matter amongst mirth, or of a ridiculous matter in grave and serious affairs; we must take care to be silent in places destinated onely to hear, as in the Church, and in Judiciary Courts. Which injunction lies most upon Women, Children, and Servants. In brief, 'tis one of the greatest points of Prudence to know when 'tis a fit time to speak, and when to be silent.

The Fifth said, The Reason of Man is that Universal Spirit which is the Soul of the world, giving activity and motion to every thing; 'tis this that turnes about the Celestial Spheres, and moves the inferior Elements by an innate principle. It makes it self understood by speech and writing, the nobleness of one whereof above the other seems to determine the question. Now Reason is more in controversie between us and beasts then speech, and speech then writing; for some admit a certain degree of Reason and Judgement in brutes; and many of them, whose Tongues are soft, large, and free, perfectly imitate our speech; but they have nothing that comes near writing, which is solely peculiar to Man. Moreover, by Reason we are onely wise to our selves, by speech we are so to some few others who hear us. But by writing our Wisdom is communicated to all the world, and lasts to eternity. 'Twas by writing with the finger in the dust that our Lord confounded the *Jews*, without speaking a word; and when he was falsely accus'd before *Pilate*, he open'd not his mouth to defend himself. Now this writing, free from the troublesomeness of praters, borrows all its force from silence, which is more eloquent then all the talk of Men; but especially in respect of God, whose praise (saith the Psalmist) is silence, and with whom the lifting up of the Heart, and mental prayer, is more prevalent then all the voices and speeches in the world. Such was that of *Moses*, of whom it was said, in *Exod.* that he pray'd in his Heart; and yet God saith to him, *Wherefore cryest thou to me in this manner?* Such is the silence of true worshippers, who worship in Spirit and Truth. Moreover, the Prophet *Jeremy* assures us, *That 'tis a good thing to wait for the mercy of God in silence.* The Angel *Gabriel* began his combat against the Dragon with silence. And *Judith* being upon the point to slay *Holofernes*, made her prayers to God with tears and silence. Besides, 'tis a signe of Humility and Modesty amongst Men.

The Sixth said, That to judge well of the Question, we must recur to Nature, who having given Man two Ears open, for one Tongue shut up, intimates plainly, that he has more need of hearing and holding his peace, then of speaking. And because the wounds of the Tongue (compar'd by the Royal Prophet to a sharp razor, and to a consuming fire by the Apostle Saint *James*) are sometimes more mortal then those of the Sword; she is not contented to put a reine under it, call'd *Frænum Linguae*,



to stop its intemperance, but hath also surrounded it with strong barriers, the two rows of Teeth, besides those of the Lips. But that which makes very much for silence, is, that Men oftner repent of having spoken, then of having held their peace. And 'tis not said, in the Holy Scripture, that Men shall be blam'd for having been silent; but that they shall give account even of the least idle words. Speaking therefore is more graceful, but silence is more safe; speech is the property of Man, but silence of the wise Man.

---

## CONFERENCE LIV.

I. *Of Touch.* II. *Of Fortune.*

WHAT the Centre is in the Earth, the Earth amongst the Elements, a Star in Heaven, Sovereignty in a State, Faith in Religion, Natural Motion in Physick, Equity in Law, Reason in Philosophy, the Body in Man, the Sense in a living Creature, that the Touch is in all the other Senses; that is to say, 'tis their foundation, and the condition without which none of them can subsist. For there are Animals which see not, as Moles; which hear not, as the Asp, and most Insects; which have not Smelling, as those who are troubled with rheume; which have no Taste, as most sick persons. But if there be found any which hath not the Sense of Touching, at the same time it ceases to be an Animal, since it is not term'd such but inasmuch as it hath a sensitive life, which consists in the knowledge of good and evil, sensible by pleasure and pain, the two symptoms of the Touch, and which alone bear the sway, and turn the balance in all the actions of Man; the scope of all which, is, either to pursue good, or to avoid evil.

I.  
*Of the Touch*

The Second said, That, for this purpose, as sensitive life is diffus'd throughout the Body; so the Touch, which is inseparable from that life, hath not, as the other Senses, a particular and limited Organ, but is extended into all the parts of the Body. Because, as among the objects of the Senses, onely the tangible Qualities give being, and constitute the Animal by their proportion and temperature; so they alone destroy it by their excess and disproportion. So that as onely a small part of the Body sees, another hears, another smells, and another tastes; if there had been but one part of the Body that could by touching have discern'd the quality of its object, it would have hapned, that whilst this part were delighted with one of those objects, the excess of some other might have destroy'd all the rest of the Animal, without its perceiving the same; and so it would have perish'd without knowing, and consequently being able to avoid the same, which is the principal  
end



end of the Senses ; which , for this reason, represent death to themselves so terrible, to the end that the horreur thereof might oblige them to a greater care of their preservation.

The Third said, That as Man is surpass'd in other senses by brutes, so he excells them in Touching, which he hath most exquisite and perfect. He alone, of all creatures, has Hands wherewith to touch, and a smooth soft skin the better to judge of tangible qualities. For being he was made to judge of things, it was requisite that he should be provided of a faithful messenger, as the touch is, to make him a true report thereof. And because he was design'd to more sublime actions than brutes, therefore he needed a more perfect temperature ; of which the goodness of Touch is a most sure sign. Hence the Physiognomist reckons the subtlety of this sense to a most certain token of that of the Mind ; as its contrary, of stupidity ; an exquisite Touch denoting the softness and tenderness of the flesh, upon which, consequently, tangible Qualities easily make their impression ; and this tenderness denotes the good temper of the Body, which is followed by futable actions of the Mind. Hence it is that great wits have commonly weak and delicate bodies ; but the stupid and dull the most robust and brawny. Therefore as the Touch distinguishes Men from brutes, so it does Men from one another. But the Sight and the other Senses do not so ; for, on the contrary, it frequently comes to pass that great spirits have the shortest sight, and the other Senses less exquisite.

The Fourth said, That the Touch is not only the most necessary in all Animals, since it serves them for a specifical difference ; (sensibility, which distinguishes them from Plants, being commonly taken for the faculty of Touching, witness our vulgar phrase, which calls one man more *sensible* than another, when he is more easily affected by the tactile qualities) but 'tis the sole sense of many Animals, especially, Zoophytes or Plant-animals, such as Sponge, Coral, and all kind of Oysters. The first of which hears not, sees not, smells not, and tastes not its nourishment ; but only dilates it self to receive it, and contracts it self to retain it as soon as it feels it neer. The second, by the relation of divers, who fetch it from under the water, averts it self by bowing the contrary way as soon as it feels the touch of their instruments. The last have no Organical parts ; and if they had, the same would be useless to them, because they are destitute of local motion, and of every other sense, except that of Touching, by which they open and shut themselves. And which Nature has given, as gross as it is, for a supplement to the subtlest sense, to wit, the Sight.

The Fifth said, That the nobleness of the Touch appears, principally, in that 'tis the most infallible of all the senses ; as the most honourable persons are accounted most worthy of credit. Therefore our Lord being to convince S. Thomas, at that time incredulous, caus'd him to feel his side ; and manifest things



things are call'd palpable, because the Touch is the last sense that is deceiv'd. Whence they who dream do not frequently find their error, till putting forth their hands to the phantasm they begin to be convinc'd that it is nothing but air.

The Sixth said, That as 'tis a common vice to all the Senses to be deceiv'd, so that of Touch is not more exempt from it than the rest; and the less, because it judges of the quality of its objects only by comparison; according to the diversity of which one and the same thing diversly affects it, and is sometimes apprehended one way, sometimes another. A man that comes out of a hot Bath shivers in the same air which he accounted warm before he enter'd into the water; and when he that learns to dance puts off his leaden soles he thinks his feet lighter than he did before he put them on.

The Seventh said, The Touch is an external sense, terrestrial and gross; it perceives hot and cold, dry and moist, heavy and light, hard and soft, smooth and rough, or unequal, acide, viscous or slippery, thick and thin, tough and friable, or brittle, and other such tactile and earthy qualities. For, as there are five simple Bodies in Nature, namely the Heaven and the Elements, so each of the five external Senses corresponds to one of them; the Sight to Heaven, in regard of its transparence and lucidity; the other four to the Elements; of which the Earth symbolizeth with the Touch, because every thing that is felt must have some solidity and consistence, which proceeds from the Earth; otherwise it could not make it self felt by it self, but only by some predominant quality, as we feel not the air when it touches us, unless it be extreamly cold or hot. The Organ of Feeling is inward skin which incompasses the whole body of a creature, by reason of its so perfect and equal temperature that it is neither hot nor cold, dry, moist, but equally partakes of all these qualities (a requisite condition in the Organs of the senses which must be unprovided of all the qualities whereof they are to judge.) So the CrySTALLINE humour is without colour, the tongue without sapour, the nostrils without scent, the ears without any sound. And the skin is neither hard like the bones, nor soft like the flesh, but of a temper between both; being therefore call'd a Nervous flesh, and a fleshy Nerve: which skin, never so little touch'd, feels perfectly; which would not come to pass if it were not the Organ of the Touch. 'Tis therefore woven of infinite nerves, terminated in it and bringing the animal spirits to it, which are the efficient causes of the Touch as well as of all the other Senses. For what the Philosopher saith, That a sensible object apply'd upon the Organ is not perceiv'd, must be understood only of the three Senses which are for the convenience of an animal, to wit, the Sight, Hearing and Smelling; not of the other two, which are for its absolute necessity, upon which consideration Nature hath appointed them to judge more neerly, exercising these



two Senses by a *medium* internal and inseparable from the Organ.

II.  
Of Fortune.

Upon the second Point it was said, Fortune is a cause by accident in things which are done for some end, by an Agent that makes use of Reason. So 'tis fortune, when one walking for his health, or divertisement, finds a Purse : but chance, hazard, or adventure is in things which act for some end without election, as brutes, mad people and children, who are not fortunate, or unfortunate, unless in hope. The difficulty of understanding the nature of Fortune ariseth from the infinite abundance of things which may be causes of things which befall men. And as 'tis proper to man to admire what he understands not, upon the observation of the many strange and unforeseen accidents in the world; some say that they come to pass by a fatal destiny necessarily guiding every cause to its effect; others, that they fall out by chance, to which the ancient Philosophers ascrib'd so much, that *Empedocles* accounted the situation of the Elements fortuitous; *Democritus* and *Leucippus* thought the production of all things was effected by the casual concourse of their atomes flying in the *vacuum* : insomuch that out of a blind superstition they erected Temples and Altars to Fortune. For indeed there is nothing divine in Fortune; since there is not any cause by it self but may be a cause by accident, and consequently Fortune. Nor is it the Divine Providence, since that which is foreseen cannot be call'd fortuitous. But we give the appellation of Fortune to any cause, which missing of its proper effect produceth another which it intended not.

The Second said, 'Twas the ignorance of men that invented Fortune, which hath no other existence but in their imagination. For every thing that is hath a certain cause determined to its effect. But Fortune and Chance are uncertain and indeterminate; therefore not causes. And although the proximate cause of every thing be unknown to us, yet 'tis not the less certain for all that, in respect of God, who ignores nothing. Therefore if there be a fortune in respect of us, 'tis an effect of our ignorance.

The Third said, We must establish in Nature either Destiny or Fortune. The former seems to fasten man to *Ixion's* wheel, which permits him not to do any thing of himself, and takes from him the commendation of good, and blame of evil; rendring him by this means guiltless of whatever he do's, and laying all upon universal causes (whatever distinction may be made of God's will, in general and particular; it not being conceivable that two contrary wills can at the same time proceed from the same source. The second is more correspondent with the daily events, which produce effects whereof no necessary cause can be found. Indeed, if effects are to be divided according to their causes, 'tis certain that some are necessary and some contingent;



tingent; whereof the latter being fortuitous cannot be referr'd to any thing but to Fortune. Yea of the things which come to pass in the world, some always arrive in the same manner, as day and night when the Sun rises and sets; others fall out ordinarily, but not always, as that a child is born with five fingers on a hand, there being some that have six; and others, on the contrary, arrive very rarely, as Monsters. But if this variety of causes and effects hath place in natural things, 'tis found much oftner in humane actions, whose constancy is unconstancy it self; there being not any whose effect is certain. For what man can promise himself that when he labours he shall infallibly become rich, that when he fights he shall have the victory, that when he serves he shall be acceptable, or that when he loves he shall be lov'd? Whereas, on the contrary, we see many persons enrich'd without labour, honour'd without fighting, and acceptable without performance of any services; and (which is more) many times hated by those they love, and lov'd by those they hate. Of all which we must either assign some cause, or confess that there is no other cause thereof but hap or mishap, which they call Fortune.

The Fourth said, That *Dionysius* the younger, the Tyrant of *Syracuse*, was not of their judgement who disclaim Fortune, assigning the cause of his not being able to preserve the Estates of his Father, That he left him Heir of all, excepting his Fortune. Now the Ancients had Fortune in great reverence, and put her amongst their domestick Gods. And the Emperours religiously kept her Statue of gold, which they sent as a badge of Empire, to those whom they intended to design their successors. Thus *Antoninus Pius*, being ready to dye, sent it to *Marcus Antoninus* the Philosopher; and *Severus* sent it to his two sons, *Bassianus*, and *Geta*. Moreover, because it visibly bears the chief stroke in gaming, even in those Games to which she gives not the addition of her name, and depend not upon skill; there are found some, at this day, who think they can fix her to some thing which they wear about them while they are at play; others attribute it to a particular situation of their bodies in respect of the Planets. But all agree, that *Cæsar* ow'd more to his valour than to his fortune; that if she could not make an Orator of a Consul, or the contrary; yet she can make a poor man rich by play; and he must be a great Rhetorician that can perswade those who have good or bad luck, that there is no Fortune.

The Fifth said, 'Twould be too much presumption in us to accuse all antiquity of ignorance, which observ'd not only certain persons and places, but some days and hours fortunate and unfortunate, noting the happy days with chalk, and the other with a black stone. Moreover, Philosophers divide goods into those of the Mind, the Body, and Fortune, comprizing under the latter, Friends, Lineage, Reputation, Honours and Riches, which are the things men make most account of in this



world. And riches are so commonly attributed to her, that they are frequently denoted by the name of Fortune. So that to maintain that there is no such thing, is to go about to overthrow common sense, and to correct *Calepin*. But her efficiency is chiefly prov'd by the employments which happen to many, contrary to all apparence, according to the diversity of which every one makes progress, or not, in riches and honours. For he that labours in little things takes most pains, and gets least, and so, on the contrary, which cannot be attributed to any thing else but fortune, no more then the contracts, bargains, and other actions of men, which are made almost always by chance. Whence arose the Proverb, There is nothing but good luck and bad luck in the world. In War, such a great Captain is constantly unfortunate, whereas *Timotheus* was always the contrary, in whose Nets Cities came to be taken whilst he slept. In Physick, such a Doctor is always accounted lucky, whereas 'twas enough to kill a sick man but to have seen *Hermocrates* in a dream; not to mention what the Lawyers themselves call the hazard of Judgements.

The Sixth said, The Ancients did like the Gouty person mention'd by *Montagne*, who ate Saucidges and Gammons, and drunk of the best, that he might have whom to lay the fault upon. They phancy'd Fortune, that they might have whom to blame for evil events, or rather to blaspheme against the Deity. She is a pure fiction of the Poets, who represented her upon a wheel, one half whereof always ascends, and the other descends; to shew the volubility and continual vicissitude of humane things; blind, to signifie that good or evil doth not always befall us according to desert, but oftentimes without distinction; sometimes a man, and sometimes a woman, but principally the latter, to denote her inconstancy; all this mysteriously, as all their other fables; to take which literally, were to do worse then the learned Pagans themselves.

The Seventh said, Every one is the Artificer of his own fortune, and all the Deities are present where Prudence is, though we rank Fortune among the Gods. Of whom we may say what *Hercules* said to the bemired Waggoner, who invoc'd him, but touch'd not the wheel, *Help thy self, and God will help thee*; none having ever obtain'd the title of fortunate, but by great pains, watchings and industries; means, which the vulgar not observing so much as their effect, attribute it to a Deity. Moreover, dextrous men affect the title of lucky, because the vulgar esteems them the more for it; and the greatest States-men hiding their counsels and the instruments they make use of to accomplish their designs, give occasion to this error. Therefore when *Zeno* had lost all his wealth by Shipwreck he should not have said, Fortune, thou hast done well to bring me to this short cloak; but rather have accus'd his own imprudence in having ventur'd all his estate at sea. For  
since



since there is nothing in the world but hath its cause, and fortune is that which is done by no cause, it follows that there is no such thing as fortune.

CONFERENCE LV.

I. Of the Taste. II. Whether Poetry be useful.

**T**He right handling of a subject requiring the knowledge of its differences, an *Apicius* might seem fitter to discourse of Taste than a Philosopher, in whom too exact a knowledge of Sauces would be accounted blameable; yet the word of Sapience or Wisdom, among the Latines, taking its name from Sappours, the Sages who profess it may seem oblig'd too to be expert in this matter. Besides, this Sense supplies Physitians with the surest evidences of the faculties of every medicament by their Sappours; which are second Qualities resulting from the various mixture of the four first, whereof the Taste is an external sense, discerning Sappours by help of the moisture in the mouth, and the Nerve of the third Congjugation, which is expanded upon the tongue, whose flesh is therefore spongy and porous, the more easily to imbibe the same. Thus the object of the Taste is sapor or relish; the Organ is the Nerve; the *medium* is the flesh of the tongue, the condition without which it is not exercis'd is the humour, either internal, as that of the mouth (supply'd by the Tonils or Almonds) or external, as the moisture which all bodies have either in act or in power. Whence, they whose tongue is dry cannot taste that which is so; nevertheless, the humidity must be moderate, since its excess no less depraves the taste then its defect.

The Second said, Since the Organ ought not to be prepossess'd with the quality of its object, the Tongue which perceives Sappours which are all moist (call'd therefore, by the Greeks, Juice) must be destitute of all humidity: for that cannot be receiv'd which is possess'd already. And as there is in every Organ a principal part which makes the sensation more perfectly then the rest; so the tip of the tongue is more proper to perceive tastes by reason of the Nerves destinated to the sense of tasting, which are found more soft there then its root, and of the liquor which is more retain'd, and more subtile there, and consequently makes relishes penetrate more effectually. And although some parts of these Nerves are expanded to the palate and gullet, yet the taste is very little perceiveable there. Therefore *Philoxenus* went upon a mistake when he wish'd for the neck of a Crane; for a long neck conduces nothing either to the advancing or continuing of the taste.

The



The Third said; Most Animals have the sense of Tasting, to the end they may distinguish their food from poyson, and what food is best, as the sweetest is. For all animals, and particularly man, are nourish'd only with what is sweet. Whence children, in whom nature being neerer its original is less corrupted, desire sweets so much: and if we mix other Sapours, 'tis either because sweet things glut and disgust sooner, easily filling the Stomack, in which by reason of their unctuous consistence they swim uppermost; or else because the depravation of our temper makes us sometimes desire contrary things to correct it, and sometimes like, to preserve it.

The Fourth said, Many Animals have no taste nor perception of Sapours, as, amongst others, the Crocodile, which also wants a tongue, the Organ of it; the Estrich, when it eats Iron; and the Wolf, earth: both which are insipid. Such was that *Lazarus*, mention'd by *Columbus*, who swallow'd glass, pitch, tallow, and other things, without disgust; and that Maid in the King of *Persia's* Court, who eat all sort of poysons, how corroding soever, and was nourish'd therewith. It being observ'd, in the dissection of their bodies, that the third couple of Nerves, which serve to the Taste, was reflected towards the back part of the head.

The Fifth said, Savour is a quality of the aliment; but nourisheth not, because 'tis a meer accident; only by it the animal judges of the qualities of its food. The matter of Savour is humid; because sapours are easily receiv'd and expanded in that which is humid, not in that which is dry. This humidity is not aerious but aqueous; otherwise Sapours might be receiv'd in the air; which cannot be, because the nature of this element is too thin and tenuious; but Savour being gross requires a subject that hath some consistence to receive it. Nevertheless this aqueous humidity alone, is not sapoury, because 'tis a simple body, and consequently insipid. But Savour proceeds from mixtion. It must therefore be joyn'd with somewhat that is dry, not with igneous siccity, because this makes the *mixtum* subtile, and apt to exhale, as odour ought to be, not savour; but with that of the earth, which gives a body and consistence to sapours, without which they could not be tasted. And 'tis by means of this siccity with the humidity, that Mineral waters acquire the sapours of the places through which they pass, and that the liquor of a Lie or *Lixivium* becomes salt, by mixtion of the more dry and adust parts of the ashes. But because these dry and humid substances difficultly mix, the particles of the one being unapt to touch the particles of the other, because both are gross and terrestrial, therefore there needs some superior agent, more powerful then either, to open and penetrate them, such as heat is, which by its various coction makes a different mixtion of the dry and the moist, whence arise different sapours; as may be observ'd in our meats and fruits of Trees, which differ in taste according to the degrees of heat.

The



The *sweet and fat* taste is for the most part produc'd by a temperate heat; the *bitter, salt and acrimonious*, by immoderate heat; the *acide or sharp, the austere or harsh, and the sowre*, by cold. The *Sweet*, such as that of Honey, comes from a perfect mixture of terrestrious with aqueous humidity. The *Bitter*, as that of Gall, from abundance of gross ficcidity mix'd with little humidity. The *Fat*, as Oyl and Fat are produc'd by excess of humidity. The *Salt* hath more humidity then the bitter. The *Acrimonious* or biting, as Pepper, hath much of tenuity, and very little of humidity. The *Sowre*, as that of unripe fruits, comes from ficcidity and humidity equally indigested. The *Austere* or pock, as the juice of Oranges, and the *Acide or Sharp*, as that of Vinegar, proceed from very much humidity and little ficcidity.

Upon the second Point it was said, This division of things into necessary, profitable and delightful, is observ'd particularly in speech, the soul's interpreter. For at the beginning Languages were only for necessity, void of all artifice, being employ'd to no other use but to make us understand one another; which sort of Language the first Philosophers employ'd to express the essence and nature of things. Afterwards History and Oratory enrich'd it with the addition of flowers and flourishes. And, Lastly, Poetry added to those Words Number and Cadence, not barely to teach and instruct, as the other liberal Sciences, but withall to recreate and delight; which is an excellent method to prevent the disgust which the disciplines bring even in their rudiments. I therefore compare our Language, consider'd in its original, to Gold yet in the Oar, mingled with earth; the same Language polish'd by Rhetorick to an Ingot refin'd from its dross; but Poetry to a goodly vessel of gold, not less rich for the workmanship then for the matter.

II.  
Whether Poetry be useful.

The Second said, That which gave birth to Poetry and makes it so much esteem'd, is the desire of imitation, proper to man alone; as he alone that understands the similitudes, correspondencies and proportions of things. Hence it is that we admire the Picture of a Serpent, a dead body, and other things whose original we have in horror; and we are ravish'd to hear the voice of a Swine naturally counterfeited, though we hate it in that animal. So Poetry and Painture imitate, and in some manner do every thing that is done in nature; whence Poetry is term'd a speaking Picture, and Picture dumb Poetry. For a Poet do's not signifie meerly a Versifier, and one that relates things done, which is the property of a Historian: but as an Actor or Player by his postures do's the very things, so the Poet must both describe things and make them. And the word Poet do's not signifie one that feigns, but one that makes. When he speaks of a tempest he makes the Winds mutiny, Ships split, mountains of water clash and lose themselves in gulfes; when  
of



of War, he makes you hear the clashing of Arms, the thundring of Cannons, and see the field strow'd with Carcases: and so in all other subjects which he treats. Wherefore, to be a good Poet, one must know every thing in perfection; which makes Poetry so difficult, and consequently so rare and admirable that few succeed well in it. For there are many Versifiers, but few Poets.

The Third said, There need no other Judges to condemn Poetry then Poets themselves, who call their highest conceits Fury, that is to say, Folly; whether it arrive to them from their fabulous gods, or more truly from the fumes of Wine, which cause them to make the best Verses, as they tell of *Ennius*: the frequentation of which is one of the greatest crimes that *Cato* imputed to *Marcus Nobilior* in the survey that he made of his Province: and 'tis observ'd that there is so great affinity between Poetry and Folly, that the best Poets have very odd actions and postures while they are making their works, and retain something thereof in their ordinary carriage.

The Fourth said, Variety of Wit has not appear'd in any Science more then in Poetry. For it has not only different laws according to the diversity of Nations, which makes it doubted what sort of Verses those of *Job* are, considering that they have no resemblance with the Greek and Latine, no more then these have with ours. But neither were ours (which consist of certain numbers of feet, and consonances or rithmes) such as those in *Cæsar's* time, in which he reports that the Gauls versifi'd; and within a thousand years that our rithme began in imitation of the Prose of the Church, French Poetry hath been so often diversifi'd, that the Poets of one age would not be so in another. And yet, sometimes under the name of Rithmers, sometimes under that of Devisers and Poets, they have been always very acceptable to great persons. And *Charle magne* prefer'd the Poems containing the exploits of his Predecessors before their Histories.

The Fifth said, That *Plato* and sundry other Politicians accounted Poetry not only so useless, but so hurtful to their Commonwealth, that they utterly banish'd it from thence, because Poets by their shameful relations of the vices of the gods intic'd men to commit the like, conceiving they did not offend when they had the example of a god; and for that Verses are more proper for loose loves then the Sciences, of which the confinements of Poetry are not capable; besides that the enthusiasm of Poets cannot consist with the gravity of Philosophy; seldom with the probity of manners, and never with a settled judgement; the Italian Proverb being almost always found true, *Di buona terra cattiva Gente, Di buon Poeta cattiva mente*. Whence *Aristophanes* saith that when *Bacchus* desir'd to find *Euripedes* or some other good Poet, he went down to Hell, because he could not any in Heaven. Moreover, their too great liberty of Satyrical  
detraction,



detraction, made them sometimes be driven out of *Rome*. Their dangerous doctrine has caus'd the reading of them to be forbidden to Christians by the Canons; and render'd them so infamous, that *Philip*, the first Christian Emperour, in the third Law, at the title of Professors and Physitians in the Cade, grants no immunity to them as he doth to all others. Indeed one may get his living in all professions with honour, except in Poetry; and if it always less fills the Poets Purses with Crowns then their heads with presumption; so (as it happens in all other Conceits, or Pastimes) it may be found sometimes proper for the divertisement of those few that have leisure to read them, but 'tis most unprofitable to the Authors; for few or none are advanc'd by it, but rather many have been hindred by this art of versifying from making their fortune otherwise. Yea their profession is so vile and abject, that whereas others count it an honour to be styl'd Physitians, Advocates, or the like, these are offended with the name of Poet. And that with good reason, considering that of all other Arts Poetry alone glories in disguising the truth. For which cause it begins to be banish'd even from Theatres, to which alone it was destinated; and Prose is come in request in sundry places, being preferr'd for gracefulness and naturalness; by which means this Art is in danger to be confin'd to the corners of streets, to serve only for Songs and Ballads. Hence it was that *Ovid* was so severely punish'd by his father, to make him leave off this Art, which prov'd so unlucky to him, that for writing his Book of the Art of Loving, he became of a rich Roman Knight a miserable exile amongst Barbarians.

The Sixth said, 'Tis to be a sworn enemy of excellent things, or rather, as *Scaliger* saith, to renounce being man, to think of banishing Poetry out of States; which is slighted only by the ignorant, and hated by those that have irregular minds. For melody is natural, not only to man, but to all things in the world which God hath created in number and measure. Which made the Pythagoreans say, that not only the Celestial Bodies make a most agreeable consort, but also the Plants by their proportions, and the beasts by their motions chant measured Odes in praise of their Creator. Therefore with more reason must man, whose soul is a number moving of it self, be delighted with numerous language, which is Poetry, the most sensible effect of that divine Harmony which is infus'd into his body. And we may make the same judgement of good from vulgar wits by their delight or disaffection to Poetry as by the recreation which they take in Musick. Indeed, if a wise man ought to be regular in all his actions, why not in his words, the image of his Reason, as Reason is of his soul. As if you should say that the well regulated dance of a Ball ought to be less priz'd then the ordinary walk or a Country dance. Moreover, Poetry hath such power over mens minds, *Tyrtæus* animated his Souldiers to fight by



the rehearsal of his Verses, which was also the custom of the Germans when they were to charge their enemies; *Moses*, *David*, and many other Prophets, accounted nothing more worthy than Poetry, to sing the praises of God. And the first Poets, as *Museus*, *Orpheus* and *Linus*, were the Divines of Paganisme. Yea the gods of antiquity affected to deliver their Oracles in Verse; and so did Legislators their Laws, to render them more venerable. Besides, they greatly help the memory; their cadence or measure serving as a rule to the mind to keep it from being at a loss. Poetry alone, amongst all the Arts, supplies praise to vertue; the rampant stile of Rhetorical discourse, though it borrow its fairest flowers and square periods from Poetry, being not comparable to that of Poetry, which is far more sublime, and consequently, more fit to immortalize the memory of Heroick actions. Upon which account the Muses were believ'd the Daughters of *Mnemosyne* or Memory. Now if Poets have been sometimes expell'd out of States, so have Philosophers, Physitians, Mathematicians, and many other Professors of Arts, acknowledg'd nevertheless very useful to humane society. If some of them have been lascivious, others impious, others slanderous, these are the vices of the Poets, not of Poetry. And as the more delicate any Wine is, the more hurtful its excess is to the body; so Poetry is so much the more excellent, by how much its abuse is noxious. *Plato*, who advis'd the banishing of it out of his imaginary Commonwealth, calling it a sweet poyson, deserv'd, more than it, to be really interdicted, there not being in all the Poets such fables, impieties and impurities as that of his *Convivium*, his *Phædrus*, and some other pieces. In the mean time he is forc'd to admire them, to call them the sons and interpreters of the gods, yea divine, and the fathers of wisdom. For their raptures cannot be call'd folly, unless in that sence that *Aristotle* saith, To Philosophize well a man must be besides himself. But their wisdom being extream, and their motions unknown to the vulgar; therefore they call that fury which they ought to call the highest point and pitch of Wisdom; term'd Enthusiasm or Divine Inspiration, because it surpasses the reach of man. And indeed everyone acknowledges in Poetry some character of Divinity, and therefore 'tis receiv'd by all the world, and serves for a guide and introducer to great personages, who otherwise would not give audience, but like that well in Verse which they would blame in Prose. Which oblig'd *Sylla* to reward the good that they might be encourag'd to continue their divine works; and the bad Poets, on condition that they made no more. And 'tis of these, as of some Rithmers of our time, that they speak who blame Poetry; in whose reproaches the true Poets are no more concern'd then Physitians in the infamy of Mountebanks. The Fables of the ancient Poets are full of mysteries, and serve for ornament to the Sciences and to Divinity it self, as the gold

of



of the Egyptians did to the Sanctuary. But if they have in all ages complain'd of not advancing their fortune, this doth not argue any demerit of theirs, but rather the want either of judgement or gratitude in others.

CONFERENCE LVI.

I. Of the Smelling. II. Of Eloquence.

**T**His Sense, which is the perception of Odours intromitted by the Nose through the spongy bone into the Mammillary processes which are appendices of the Brain rather than Nerves, shews by the structure of its Organ that it is more particular to the Brain than any other. For the Nerves which carry the Spirits for the performance of the other Senses are communicated elsewhere too; some of them to all the rest of the Body. Only these two nervous appendices of the Brain have nothing to do with any other part. It makes use of odours as a perfume, sometimes to redress its native coldness, as when it is pleas'd with Pomanders, Musk, *L'eau d'ange* (a sort of delicate compound water) Orange-flower-water, and other Aromatical things; sometimes to cool its spirits overheated by continual action, as by the Violet, the Rose, or Jasmin; but always for their refreshment. For the Spirits being of an aerial nature, nothing recreates them so much as what resembles them, to wit, the Air, especially when it is tinctur'd with some friendly quality. Hence arise those different phancies upon occasion of smells. One swoons at the smell of Musk and the Rose, which others love so much. Another loves the scent of Rue and Worm-wood, so abominated by others, that some women have miscarri'd by it. And indeed of all the wonders resulting from the consideration of odours, there is none greater than the relation they have to the womb, which is known to move it self to, and approach towards, and fly away at the motion of good or bad smells; which work upon this part by means of the animal spirits (call'd, for this reason, Impellers by the Greeks) which the odours powerfully move, and they all the other parts; but especially the womb which hath a particular sympathy with the Brain, the Conservatory of the Spirits; or else because the contraction of the Nerves, which is caus'd when an odour displeas'd drives the Spirits downwards, who by their impetuosity hurry along with them the more fluid and moveable parts, as the Matrix is, when a pituitous humour has slackned its ligaments: as, on the contrary, the spirits being dilated to receive the steam of an odour grateful to the Brain with a full torrent, they attract it upwards by the same reason.

I.  
Of the Smelling.



The Second said, Because Faculties cannot be understood but by the correspondenc they have to their objects; therefore to understand the Nature of the Sense of Smelling, 'tis first requisite to understand the Nature of Odour, and by what *Medium* it is carry'd to its Organ. Odour is a *patible Quality*, arising from the temperament of siccity predominant above humidity; for though many drugs, waters, essences, and liquors, in which humidity is necessarily found, and siccity seldome, are very odoriferous, yet they borrow their smell from the dry exhalation mingled with their humid Body; from which if the same be separated, the humour remains inodorous. Neverthelesse this exhalation is not the Odour but the subject and vehicle of it; otherwise an Odour should be a Substance, and not an Accident, as it is. 'Tis convey'd to its Organ sometimes by species call'd *Intentional*, when it is remote from the same; or the *Medium* is so dispos'd that it cannot alter its Substance; thus the species of the Odour of a Worm hanging upon the hook so exquisitely penetrates the water, that the fish though very remote instantly repairs to it; and many Animals scent powder at two or three leagues distance. But when the Odour is present to the Organ of Smelling, it hath no need of species, with which the Senses have nothing to do but so far as they serve to supply the absence of their Objects. The Nose receives Odours by its two passages, and for this reason it hath somewhat a long shape; a substance partly boney for firmnesse sake, lest closing together the passage should be stop'd, but cartilaginous in the lower part; for the more easie dilatation in breathing, smelling, and purging the Brain, the three prime uses of the Nose. The true seat of Smelling are two small sponges made of the anterior part of the Brain, passing through the Cuneal Bone near the cavity of the Eyes, call'd the Mammillary Processes or Productions; spirituous and vaporous, the better to receive Odours; and nervous, to distinguish them; lying upon the Cribrous or spongy bone which is full of small bones, lest the Brain might be hurt by smells if they were carry'd directly and impetuously to it; which danger is avoided by their being disunited and allay'd by this transcolation; and these two Caruncles, like the nibbles of Womens breasts, have alone, among all the parts of the Nose, a proper figure, a certain sign for distinguishing the Organs of the Senses. For the Brain cannot do this office, because its extreme humidity would diminish the virtue of Odours.

The Third said, As the Nose, the instrument of Smelling, is plac'd in the middle of all the rest; so this Sense is of a middle nature between them. For 'tis more material then the Hearing and the sight, but more subtile then the Touch and Taste; although it hath a great affinity with this latter, by which it perceives its object, namely, Odours, which are distinguish'd by help of Sapours, and are divided according to their number, agreeable



agreeable and disagreeable being only its general differences. For there are as many particular differences as several subjects. Moreover, Savour and Odour are compos'd of the same matter, and produc'd by the same heat; they are both qualities of food, whose good and evil faculties are discern'd by smell as well as by taste. Yet they differ in this, that some Odours are not of food but of delight, as that of Roses; with which kind of Odour Man alone is pleas'd, amongst all Animals, who are not delighted with Odours further than they signify to them the goodness of their food; that which is said of the *Panther*, that all other Animals run after its smell, being accounted fabulous. They have also this peculiar, that Odours come from an igneous and subtile ficcidity predominant over humidity; whereas Savours reside in humidity. Hence it is that flowers have more smell than leaves, because they are made of the more tenuious parts of the Plant; among Flowers, those that grow amidst bushes, and in other dry places, are more odoriferous; and Roses smell sweeter about Noon when they are dry'd by the heat of the Sun, than in the Morning when they are bedew'd with the humidity of the Night.

The Fourth said, Most Animals have a bad Odour, and Man the most imperfect Smelling; partly, because Nature hath thought fit to give this Sense in a more exquisite degree to Animals that live by prey, as to the Dog and Vulture, (and Man was to hunt otherwise than by the Nose) and, partly, by reason of the situation of the Mammillary processes near the Brain, more cold, and moist, and large, in Man than in any other creature. Whence it is, that Men know not the differences of Odours as they do those of the other objects of the Senses. Yet as there are Animals which are driven away by certain bad smells, Flies by that of Brimstone, Serpents by that of *Galbanum*, and generally all by the steam of the carcases of their own kind; so some Odours not only drive away Men, as the fume of an Indian pepper, but are accounted mortal, not by reason of the smell, but of the hurtful Body which it introduces into the Ventricles of the Brain. As, on the contrary, there are Odours which recreate so much that they are thought to nourish; for they who are conversant among the smells of meat eat less; and the sole Odour of new Wine inebriates.

The Fifth said, Odour is a fumous exhalation excited by heat either internal or external. Therefore Gold is inodorous, its perfect mixtion hindring it from exhaling; and things chaf'd or heated have a stronger smell, because the heat draws outwards those subtile parts which cold incloses and keeps from expanding themselves; and odoriferous are diminish'd in time through the evaporation of their more subtile parts. So Wine, unless well stop'd, loses with its Odour its virtue and goodness, as if its strength consisted in its smell; and Camphire exhales utterly if it be not kept close. And Perfumes have a more

agree-



agreeable smell a far off then near hand, because the subtiler parts are scented at distance, and the grosser hard by.

II.  
Of Eloquence

Upon the Second Point, the First said, That if we cannot evince the Excellence of Eloquence above all other Humane Actions, we must confess that we have no Eloquence; for this is the golden chain which our ancient *Gaules* fastned to the Tongue of their *Hercules*, and made him draw all his Auditors by the Ears. Moreover, since 'tis the way to perswade, and perswasion is the way to do any thing whatever, there is no power that can equal it. Which to prove by Examples would require the transcription of all Histories. It hath disarmed Anger and Justice too a hundred times, obtain'd the Generallship to *Demosthenes*, notwithstanding his Cowardice and inexperience in the matter of War; the Consulship to *Cicero*, bent *Cæsar's* heart for him, which the forces of the Romane Empire could not bend, when he so ravish'd him as to make him let the book fall which he held in his hands; so well can this Art of well speaking master Bodies as well as Souls. Therefore Conquerours authorize their Cannon shots with reasons, and employ so many Orators to justifie their exploits, and make their government acceptable; and the *Romans*, though they became masters of all the world, never drew a sword out of the scabbard till they had first charg'd the fault by their manifestoes upon those whom they declar'd their Enemies. Which seems to be the onely difference between regular wars and pirates at Sea, or robbers on land. 'Tis hence also that the greatest concussions of States, and revolutions of Monarchies, have proceeded from Religion, which hath also lay'd the foundation of some, bringing the Body into subjection by perswading the Soul; (whereas, when open force subdues the former, it loses the affection of the latter;) nor matters it whether the Religion be true or false, provided the people be perswaded of it. For being none are constrain'd to believe, as *Theodosius* the Emperour said, if the inward part be not won, people pay nothing but countenances, like bad servants; and Man is so govern'd by phancy that good seems bad to him if it please him not, and bad good when he affects it. Indeed, all actions that a Man exercises by constraint are of the Animal, but those which he doth voluntarily are of the Man, distinguish'd for this cause from beasts by Intellect and Will; the former of which serving for a foundation to the latter, this Will is govern'd by Reasons, as a Horse by a bridle. This is the true Magick, of which so many Impostors falsely boast, whose admirable effects appear in all conditions, sexes, and ages. Is any thing dearer to an old man then his Crowns? Yet discourse entraps them, some under one pretext, some under another; and which is most strange, such a one shall bereave him of his wealth, whilst he makes shew of encreasing them. Is there any thing more precious to a Woman then



then her Honour? yet insinuation oftentimes prevails upon her; we love nothing more than life, and yet a well animated Oration will make people expose it to apparent danger. In brief, there is no kind of profession and mystery, but owes what it hath most profitable to Eloquence. Preachers and Advocates lay the main stress upon it. Physicians, who seem to have less need of it, acknowledge its usefulness in their counsels, which were of small credit and authority without it. It is wholly necessary to Merchants for their selling. Upon which score, possibly, *Mercury* was made the Patron of Negotiators. For persuasion, which is the end of it, needs not always an Oration complete in all its members; the greatest pitch of an Orator is to contract himself according to time, place, and persons. A General of an Army animates his Soldiers more with three words, as he is going to charge the Enemy, than a Preacher doth his Auditors in a whole Lent. Even Gestures are sometimes eloquent, so the Curtesan *Phryne* carry'd her law-suit by discovering her fair bosome; as also did a Captain by shewing his scars, to their Judges who intended to condemn them. Whereby it appears how great the power and extent of Eloquence is.

The Second said, Since some were so hardy, the last Conference, as by speaking ill of Poets to disparage the language of the gods; let us examine that of men; that *Pallas* may not complain of the same treatment that was shew'd to the Muses. For not to strike the same string twice, the lasciviousness imputed to them seems more justly to belong to Orators and Poets; since *Mercury* (the god of thieves as well as of Eloquence) and not *Apollo*, was the messenger of the amours of the gods. Now 'tis hard for the Disciples not to retain some thing of their Master. Moreover, *Socrates* and *Plato* define Eloquence, the art of deceiving or flattering; and this latter banishes Orators out of the excellent Common-wealth which he took so much pains to contrive. But other real States have done them more evil, driving them effectively out of their territories, rightly judging, with *Æschylus*, that nothing is more pernicious and prejudicial than an affected language embellish'd with the graces of Eloquence; which the more florid it is, the more poyson it hides under its flowers, which have nothing but appearance. Therefore the *Romans*, the wisest Politicians in the world, drove them so often out of their Common-wealth; as during the Consulship of *Fannius Strabo*, and *Valerius Messala*, when *Cneus Domitius*, and *Q. Licinius* were Censors; and under the Emperor *Domitian*. And 'tis one of the surest foundations of the Turkish Empire, and by which they have found most advantage; their forbidding the having, by this means, instead of an Army of talkers, good for nothing but to multiply noises and divisions, by disguising the Truth, innumerable stout fellows of their hands, who have learn'd no other lesson but Obedience: By which, from a small beginning they have subdu'd a  
great



great part of the world, particularly *Greece*, which alwayes made profession of this talkativenesse. Yea, in *Athens* it self, the cradle of Eloquence, the Orators were forbidden the Court, the Palace, and other publick Assemblies, because they perverted Right; and *Timagoras* was there condemn'd to death for having made Complements to *Darius*, according to the mode of the *Persians*. The ancient Republick of *Crete*, and that of *Lacedæmon*, (the School of Virtue) were not unmindfull to provide against these Sophisters; the latter opposing their design by the brevity of its Laconick stile; and having banish'd *Ctesiphon*, for boasting that he could discourse a whole day upon what ever subject were propounded to him. What then would it have done to *Demosthenes*, who commonly brag'd that he could turn the balance of Justice on which side he pleas'd? Is not Eloquence therefore more to be fear'd then the musick of the *Syrens*, or the potions of the inchantresse *Circe*, being able to involve innocence in punishment, and procure rewards to crimes? Moreover, 'tis a Womans Virtue to talk. And therefore *Cæsar* disdain'd this present which Nature had given him; and few people value it but such as have nothing else to recommend them. *Volaterranus* observ'd few persons both virtuous and eloquent; nor do we find famous Orators in *Macedon*, which gave birth to *Alexander*, and so many other great Captains. 'Twas with this Eloquence that *Demosthenes* incens'd *Philip* against his own City of *Athens*; that *Cicero* animated *Marcus Antonius* against that of *Rome*; that of *Cato* was one of the causes that incited *Cæsar* against the liberty of his Country; and yet *Cato* hated this art of Oratory so much, that he once caus'd audience to be deny'd to *Carneades* and his companions, *Critelaus* and *Diogenes*, Ambassadors from *Athens* to *Rome*, upon no other reason, but because they were too Eloquent. And, not to speak of the vanity of Orators, a vice more incident to them then to Poets, (witnesse the boastings of *Cicero*) their art is altogether unprofitable; since it serves onely to paint and deck the truth, which hath no need of ornaments, and ought to be plain, pure, simple, and without artifice. In a word, to represent truth adorn'd with flowers of Rhetorick, is to lay Fucus upon a fair Complexion, to paint Gilly-flowers and Anemonies, and to perfume Roses and Violets. But what may it not falsifie, since it disguises it self, covering its figures with the hard words of Metonymy, Synecdoche, and other barbarismes, to make them admir'd by the ignorant.

The Third said, That there being nothing but is lyable to be abus'd, both they speak true who commend Eloquence, and they who decry it. When this faculty of speaking well undertakes to make great things little, and the contrary, it frustrates their wish who would have things themselves speak. Nor is there any lover of eloquent discourses but prefers before elegant speaking the plainesse of a good counsel, when some serious matter



matter is in debate, either touching health, businesse, or the good of the Soul. And therefore I conclude, that Eloquence is indeed more graceful, but simplicity and plainesse more excellent and desirable.

CONFERENCE LVII.

I. Of the Hearing. II. Of Harmony.

**T**He Hearing is the Sense of Disciplines, the inlet of Faith, which the Apostle saith, *comes by Hearing*, the judge of sounds and their differences; the cognition whereof is the more difficult, for that they are the least material qualities of all; considering that they are neither the First, as the Tangible; nor the Second, as Colours, Odours, and Sapours, depending upon the various mixture of the first; but of another kind of qualities which have scarce any thing of the grossnesse of matter. The little corporeity they have not proceeding from that, but from the Air which enters with it into the Eear. Nevertheless sound is not wholly spiritual, for it presupposes in the bodies collided together, hardnesse, smoothnesse, and such other second qualities, without which the collision of two bodies is not audible. But the chief cause of the difficult cognition of sounds, is, that they are produc'd of nothing, namely, of Local Motion, which (by the testimony of the Philosophers) is a pure Nothing, Motion being rather a way to being, then a true being. Not that Motion produces something that is real of it self, since Nothing cannot produce any thing, but onely by accident and by another. So by friction attenuating the parts it generates heat, and by the meeting of two bodies it makes sound, which lasts as long as its cause, and ceases when this fails; contrary to other qualities, which have a fix'd and permanent existence in Nature. For the tingling of a bell which continues some while after the stroke, is not one single sound, but many; the parts of the bell being put into a trembling motion by the blow, and communicating the same to the parts of the Air contain'd in the cavity of the bell, which Air is so long clash'd together till all the insensible parts of the bell be return'd to their first rest; and therefore the laying of the hand upon it hinders this motion, and consequently stops the sound. And 'tis for this reason that it resounds more when it hangs freely, then when it is held in the hand; and some bells have been seen to fly in pieces upon the application of a piece of Iron to them whilst they were trembling. The cause whereof is this; if while all the parts of the bell tremble, and equally move from their place, one part be check'd, it becomes immoveable, and so not following the agitation of the rest is separated from them.

I.  
Of the  
Hearing.



The Second said, Though sound, (the object of the Hearing, containing under it Voice and Speech) is oftentimes accompany'd with three things, the body striking, the body struck, and the *Medium* resounding; yet these three do not always meet in all sort of sounds, as we see in that which is made by our bellows, the noise of a Petar, Salt, Chestnuts, and other aerious and flatuous bodies cast into the fire; because these flatuosities being rarifi'd require an outlet, and therefore impetuously break forth out of their restraint; which eruption striking the neighbouring Air produces a sound. The same is seen also in the Voice, which is form'd by collision of the Air in the Lungs against the *Larynx*; the palate and the teeth. So that the proximate cause of sound is not the shock of two bodies, but the breaking of the Air when its motion is hindred. A piece of cloth makes a noise in the tearing, (but not in the cutting,) because of the sudden separation of the parts of the Air; which on the other side, for fear of *Vacuum*, are impetuously carry'd towards the place of their separation; and the wind whistles, by reason of the violent motion which it causeth in the Air; sometimes driving the same before it, sometimes pressing and wracking it; or because it meets some other wind or body that opposes its natural motion.

The Third said, A perfect sound cannot be made without the encountring of two bodies, and Air between them; for want of which, there would be local motion, but no sound in a *Vacuum*, and the motion of those great celestial orbes is not audible. Now these bodies must be hard and solid, either of their own Nature, as Copper and Silver, or by the union and construction of their parts, which makes them act and resist as if they were solid; such are the Air and Water agitated. Moreover, that this sound be perfect, 'tis requisite that the bodies be large and smooth; for if they be rough and scabrous, the Air which is compress'd finds means to expand it self in the interstices of the higher parts; if they be acute and pointed, they cut and divide, but do not break it. So a needle striking the point of another needle makes no noise, because it onely cuts the Air, but do's not compress it. If these solid bodies be hollow and dry, the sound is made the better; and yet more, if they be aerious. Hence, among metals, Brass, Silver, and Gold, resound more then Lead and Iron, which are of a terrene nature. Among Trees, the Sallow and the Fig-tree have a sound; and the leaves of Laurel crackle in the fire, by reason of their aerious parts. Lastly, the bodies must be friable, that is to say, divisible at the same time into very small particles, as Air, Glass, and Ice; or in case they break not, at least they must tremble in all their parts, as bells do. Therefore Water, not being friable, by reason of its tenacious humidity which keeps the particles together, cannot be the subject of sounds; that of running Water being made by the occurse of the Air upon its surface, not in the Water it self, in which no sound



sound can be made although it may be somewhat confus'dly transmitted; as 'tis to fishes, whom the noise makes to abandon the shore.

The Fourth said, Hearing was given to Man, to satisfy his natural inclination to understand the thoughts of his species by the utterance of words, which would be useless to conversation, if they were not receiv'd by this faculty; whose dignity appears chiefly in the structure of its Organ, the Ear, both external and internal, which is destinated to the reception of sounds. Therefore the Philosopher derides *Alcmaeon* for saying that Goats respire at the ears. The external is Cartilaginous and tortuous, unmoveable in man alone, always open, on each side the head, to receive sounds from all parts, which are carri'd upwards in an orbicular figure. The internal situate in the (*os petrosum*, or) bone of the Temples, hath four passages, *viz.* the auditory *meatus* clos'd with a membrane call'd the Drum, behind which is a cord fastned to the stirrup, the anvil and hammer, small bones as dry and big in children as in old men. 2. That which incloseth the natural and immoveable Air, the principal Organ of hearing. 3. The Labyrinth. 4. The Cochle or Shell-work. But the passage which goes from the Ear to the Palate and the orifice of the Wind-pipe is most remarkable; by which the inspir'd air doth not only refresh the Lungs, but also the natural implanted air in the ear. Hence ariseth that sympathy of the Palate and the Ears; and to hear well, we sometimes hold our breath, for fear of disordering the species of sounds; and those that gape or yawn, hear little or not at all; because the vaporous spirit which causeth oscitation so puts up the drum of the ear, that it cannot well receive sounds; and for the same reason they that yawn dare not pick their ears at that time for fear of hurting the inflated Drum; which if it come to be touch'd, the yawning ceaseth; those that scratch their ears put themselves into a hawking or coughing. And lastly, 'tis for this reason, that such as are born deaf are also dumb, because of the straight connexion of the auditory Nerve, being of the fifth conjugation, with the seventh, which is at the root of the Tongue.

The Fifth said, Sounds are carri'd to the ear in the same manner as they are produc'd; namely, by a fraction of the air adjoining, which hath a sphere of activity, and is like that which is caus'd in the water by casting a stone into it; but without any intentional species: Otherwise sounds would be heard at the same time, and in the same manner, by those that are neer, and those that are far off; in regard the intentional species being spiritual is carri'd in an instant, being caus'd by a simple alteration which requireth not the time necessary to local motion whereby Hearing is perform'd, and by this means distinguish'd from vision; in which at the same time the *medium* and the Organ are both alter'd; whereas, in Hearing, the Organ is not al-



ter'd till after the *medium*. Hence it is, that the wind helps greatly to the carrying of sounds ; which would not be, if they were only intentional species ; for visible things are seen as well in a contrary wind as in a calm air ; and that sounds seem weaker a far off then neer hand.

The Sixth said, Among the objects of the Senses sounds and odours have alone had the honour to be dedicated to the Deity : Melodie and Incense having always been employ'd in Divine Service ; either because the humane soul is most delighted therewith ; or for that either of them being somewise spiritual and corporeal, God requires that we offer him both the body and the spirit ; whereas Dæmons abhor nothing more then Harmony and Perfumes, as ill futing to their irregular and infected nature. And sounds have so great affinity with the soul, that according to their cadence and their tones, they excite compassion, cruelty, joy, sadness, courage, fear, lasciviousness and chastity ; whence it was said that *Ægypthus* could never debauch *Clytemnestra* till he had kill'd her Musitian. Because all our actions and inclinations depending upon our spirits, they are modifi'd and made like to the sounds which they receive by the ear. So that if the sounds be tremulous, grave, sharp, quick or slow, the spirits become so too ; and consequently the Muscles, which are instruments of voluntary motion, having no action but by means of the spirits, they impress upon them, and make them follow such cadence as they like. Hence it is, that hearing others sing, we fall a singing too without thinking of it ; with those that whisper, we whisper too ; with those that speak loud, we speak so also : that the air of the Musitian stirs our members to conform to it, and that our spirits are displeas'd with bad cadences ; as if the outward air had an absolute dominion over our spirits.

11. Upon the second Point, it was said, That Harmony is taken  
*Of Harmony.* for any proportion and agreement, but chiefly for that of sounds, in which it is more perceptible ; and that even by the ignorant. Its invention is ascrib'd to *Tubal* the first Smith, upon his observation of the various sounds that the strokes of his Hammer made upon his Anvil ; which *Pythagoras* also made use of to find out the proportion of his musical numbers. Of which having elsewhere spoken, I shall only add here, that Harmony presupposes many sounds, for one alone makes but a Monotone, and two an unpleasing reciprocation : but six notes are requisite to perfect Musick, industriously compriz'd in the Hymn, *UT que-  
ant LAxis REsonare fibris Mira gestorum, &c.* This harmony is either vocal or instrumental ; the former whereof having graces and variations inimitable by instruments far surpasses the latter, but their mixture is most agreeable.

The Second said, Nature seems to have made a show of her goodliest effects to our Senses, and conceal'd their causes from  
 our



our knowledge. Musical harmony aims at the instruction of men; that of man's body is the admirable artifice of the Formative faculty, which *Galen* calls divine; but the harmony of the world puts our curiosity most to a non-plus. 'Tis the cause why water, notwithstanding its fluidity, gathers it self into a heap, to leave dry land for the habitation of animals; and that the earth, which should settle about its centre, by its equal gravity, yet rises up in mountains. The air is alter'd by all sort of qualities, that it may give a good one to the earth. The fire descends from its sphere to be captivated in Furnaces for our use, and is imprison'd in cavities of the earth to promote the generation of Metals. The Heavens move for the benefit of inferiour bodies, in a place where they might enjoy eternal rest. 'Tis through this harmony that the water becomes thick at the bottom, and contracts alliance with the earth, while its surface resolves into vapours; the rudiments of air, whose highest region likewise approaches the nature of fire; and this has somewhat of *Æthereal*, and the constitution of the Heavens on which it borders and conjoyns with this inferiour world. The cause of this chain and connexion is an universal vertue comprehended in the extent of each *being*, besides the proper motive vertue destinated to content its appetite. The necessity of this vertue is a certain evidence of its existence; for since every thing conspires for the general good of the world, and withstands the division of its parts, Nature must have allotted them a power which may guide them to that end; now this power is not extrinsecal, since it resides in the subject it self. Nor is it the motive vertue; for this and that have two different objects and ends, namely, the publick, and the particular good, which are not always contain'd one in the other. Besides, 'twould be a manifest contradiction, to say that by one and the same vertue things expose themselves to the loss of their proper qualities for the publick good, and keep them when only their particular is concern'd. Wherefore there is one general law, which having authority to force all things to contract amities not sorting to their inclination, is above that vertue, which leads things directly to their own good: which is the cause of the excellent harmony observ'd in the whole world.

The Third said, Indeed Harmony is every where between the Creator and his Creatures both spiritual and corporeal; in the Hierarchies of bless'd Spirits one with another, in the assistance of the motive Intelligences with their orbs; between the great and the little world; in the latter of which the Scripture sets forth to us a perpetual musick of the blessed in the the Empireal Heaven; *Plato*, a harmony proceeding from the motion of the Celestial bodies. Daily experience makes us hear in the air a consort of winds; the Sea beats a measure by its ebbing and flowing; the Birds of the air perform the *Cantus*; the Beasts,

the



the Base ; the Fishes, the *Tacet* ; Man, the Tenor ; who again in the structure of his body and soul is a perfect harmony. In the body, the temperature of the humours is so harmonical, that their disproportion drives away the soul, which *Galen* upon this account calls harmony. In the soul, so long as Reason holds the sovereignty, and constrains the murmuring Appetite to hold its base, there results from it a harmony delectable to God and Men. On the contrary, if you would apprehend its discord, do but imagine the disorderly uproar excited by choler, and the other passions get the mastery over Reason. Yea mans whole life is either a perpetual harmony or discord. In Religion, when one Head is acknowledg'd, and every one submits thereunto for Conscience sake, and keeps his station ; how beautiful are those Tabernacles of *Sion*, and how agreeable is this Church to its Spouse, to those that behold it in this estate, and to it self ? On the contrary, in Schism and Heresie, when every one abounds in his own sence, and will not depend upon any other, how unpleasing is this division even to those that foment it ? In the State, when a just Monarch well counsell'd holds the Sovereignty ; the Church, the Nobility, and the third Estate, the other parts ; nothing is impossible to him either within or without. He may do every thing that he will, because he will do nothing but what is just. On the contrary, represent to your self the horrible Tragedies of a Faction revolted against its Prince, or of a furious Triumvirate, and you will see the difference between harmony and discord ; whereof the difference and power is so notable, as to all our actions, that he shall speak truth who shall establish it for the cause of all that is either pleasing to us, or disagreeable. So the same materials of two buildings differently set together will render one beautiful, the other deformed. Of two countenances compos'd of the same parts, the proportion of the one will invite love, while there is nothing but hatred and aversion for the other. Yea this Harmony extends its jurisdiction even to things incorporeal. An unjust action displeases though it do not concern us ; and the most peaceable man in the world can hardly forbear to interest himself when he sees a great scoundrel outrage some poor little child. The disproportion which appears in the attire of another offends us, as when we see a Porter's wife better cloth'd than a Counsellours ; of which the reason seems to me, that our soul being a harmony, is not pleas'd but with what resembles it self.

The Fourth said, Effects, the surest evidences of their causes, so apparently speak the power of Harmony, that *Orpheus*, by the relation of the Poets, recover'd his *Euridice* out of Hell by it. *Timotheus* made *Alexander* leave his feast and betake himself to his Arms ; but changing his tune, return'd him again to the Table. Orators made use of it to regulate their gestures and voices ; and at this day not only the harmonious sound of  
Organs



Organs serves to enflame our zeal, but that of Bells is successfully employ'd to drive away the Dæmons of the air when they raise tempests in it.

CONFERENCE LVIII.

I. Of the Sight. II. Of Painting.

**A**N ignorant Philosopher was he, who pull'd out his eyes that he might the better Philosophize; since, on the contrary, 'tis by the sight that we have cognition of all the goodly objects of the world, the ornament and agreeable variety of which seem purposely made to gratifie this Sense; whose excellence and priviledge appears in that 'tis free from the condition requisite to all the other Senses, *viz.* that their objects be at a moderate distance; for it discerns as far as the Stars of the Firmament, knows more things than they (there being nothing but has some *light* and *colour*, which are its *objects*) and that most exactly, distinguishing even their least differences; yea it hath this of divinity, that it acteth in an instant, being no more confin'd to time then place, and much more certain then any of the other Senses. And as if it alone were left in the free enjoyment of its own rights, there's none besides it that hath the power to exercise or not exercise its function, as it lists; the muscles of the eye-lids serving to open or close the curtain when it pleaseth, whereas all the rest are constrain'd to do their offices when their objects are present. Moreover, man's noblest faculty, the Understanding, is call'd the Eye of the Soul, because it performs the same office to it that the Eye doth to the Body, which guides and governs. And therefore, in the dark, which hinders the use of this sense, the most daring are not without some fear which cannot proceed from the black colour, as some hold, but from our being destitute of our guide and conductor, which serves for a sentinel to us to discover such things as are hurtful; for in the same darkness we are pretty confident in case we be in the company of persons that can conduct us, and supply the use of our own eyes.

The Second said, Were it not for custom which renders all things common, there would be nothing so admir'd as the Eye, which, as small as it is, gives reception to all corporeal things of what magnitude soever; yea every one is represented there in its own natural proportion, though the species of an Elephant be no bigger in mine Eye then that of a Flye; and nevertheless the Senses judge of their objects by the species streaming from them. And the convex fabrick of the eye representing a mirror, seems to argue that we do not behold objects in their true

I.  
Of the Sight.



true magnitude, but very much smaller then they are. For we see things so as they are receiv'd in the eye. But they are receiv'd there as the visible species are in Looking-glasses, which if plain represent the same in their true magnitude; if spherical, as the eye is, render them much smaller. And nevertheless we see things in their just proportion. Whence 'tis to be concluded that our Sight which is the most certain of all the Senses is in a perpetuall, yea a general error, which consequently is no longer an error, since to erre is to deviate from rule, which is a general law. Moreover, this too is wonderful in the Sight; that all the other Organs make several reports to the Senses; one accounts that hot which another judges cold or tepid; one taste seems fresh to one which another thinks too salt; they are of one opinion in odours and sounds, and these are of another; though their Organs be rightly dispos'd. But that which appears black to one seems so likewise to every body else. And if the Sight happen to be deceiv'd, as when we judge the Moon greater in the Horizon by reason of the vapours of the earth then when she is in the Meridian; or when a straight stick seems crooked in the water; the same eye which is deceiv'd finds its own error by comparison of other objects. Hence ariseth the doctrine of the Parallaxes, and the rules of Opticks, Catoptricks, and Dioptricks, which are practis'd by the sight. So that as he doth not perfectly *delire* who knows that he is in a *delirium*, so the sense cannot be said altogether faculty when it discerns its fault. Which the other senses do not.

The Third said, The excellence of the Sight will be better understood by considering its contrary, Blindness, and the misery of the Blind; their life being an image of death, whilst they pass it in perpetual darkness. Therefore the Civilians exclude them from publick Offices; because, say they, they cannot perceive, nor consequently esteem the badges, and ensigns of their Magistracy. Moreover, the Egyptians thought nothing fitter to represent their Deity then the figure of the Eye, which the Stoicks call a god, others a divine member, and the Luminary of the little World; *Theophrastus*, Beauty, because it resides principally in the Eyes, the most charming part of a handsome face. Their colour, twinkling, fixedness, and other dispositions serve the Physiognomists for certain indications of the inclinations of the soul, which all antiquity believ'd to have its seat in the eyes; in which you read pride, humility, anger, mildness, joy, sadness, love, hatred, and the other humane affections. And as the inclinations and actions of men are more various then those of other creatures, so their eyes alone are variously colour'd; whereas the eyes of all beasts of the same species are alike. Yea the eyes are no less eloquent then the tongue, since they express our conceptions by a dumb but very emphatical language; and a twinkle of the eye many times moves



moves more to obedience than speech. *Plato* being unable to conceive the admirable effects of the Sight without somewhat of divinity, believ'd there was a celestial light in the eye, which issuing forth to receive the outward light, brought the same to the soul to be judg'd of; which nevertheless we perceive not in the dark, because then the internal streaming forth into the obscure air, which is unlike to it self, is alter'd and corrupted by it. Indeed, if it be true that there is a natural implanted sound in the ear, why may there not be a natural light in the eye? considering too that the Organs ought to have a similitude and agreement with their objects. And hence it is that the eyes sometimes flash like lightning in the night, as *Cardan* saith his did; and *Suetonius* relates the same of *Tiberius*; and that those that are in a Phrensy imagine that they see lightning. For it seems to me more rational to refer this Phænomenon to the lucid and igneous spirits of the sight, which being unable to penetrate the crySTALLINE or vitreous humour by reason of some gross vapours, reflect back into the eye, and make those flashes; then to the smoothness of the eye, or to attrition of the spirits, or, as *Galen* holds, to an exhalation caus'd by the blood which is carri'd to the head; though this latter may sometimes be a joynt cause.

The Third said, The Eye is compos'd of six Muscles, as many Tunics, three Humours, two pair of Nerves, and abundance of small Veins and Arteries: its object is every thing that is visible, as colour, light and splendor; light, in the Celestial Bodies, wherein the object and the *medium* are the same thing, since the light of the Sun is seen by it self; colour, in inferior bodies, where the object and the *medium* are two, for colour cannot be seen without light; splendor, in the scales of Fishes, rotten wood, the eyes of some animals, Gloe-worms and the like; for it is different from their natural colour. Its Organ is the Eye, so regarded by Nature that she hath fortifi'd it on all sides for its safety, with the bone of the Forehead, the Eye-brows, the Eye-lids, the hair thereof, the Nose, the rising of the Cheeks, and the Hands to ward off outward injuries; and if *Galen* may be believ'd, the Brain it self (the noblest part of the body) was made only for the eyes; whence *Anaxagoras* conceiv'd that men were created only to see or contemplate. The Eyes are dearer to us than any other part; because, saith *Aristotle*, they are the instruments of most exact knowledge, and so serve not only for the body but the soul, whose food is the knowledge which the eye supplies, call'd for this reason the Sense of Invention, as the Ear is that of discipline. 'Tis of an aqueous nature, because it was requisite that it should be diaphanous, to receive the visible species and light; for if it had been of a terrestrial matter, it would have been opaque and dark; if aerious, or igneous, it could not have long retain'd the species; air and fire being thin diaphanous bodies which re-



ceive well but retain not ; for though the air be full of the species of objects which move through it from all parts, yet they are not visible in it by reason of its rarity. It was fit therefore that the Eye should be of a pellucid and dense substance, that it might both receive and retain the visible species ; which kind of substance is proper to water, as appears by the images which it represents. Moreover, the Eye being neer, and conjoyn'd to the Brain by the Nerves of the first and second conjugation, and to the membranes thereof by its Tunicles, could not be of an igneous nature perfectly contrary to that of the Brain, as *Plato* held it to be because of its agility, lucidity and orbicular figure, like that of fire (as he said) and because the Eye is never tense or stiff as all the other parts ; all which he conceiv'd could not be but from fire. For the Eyes agility or nimbleness of motion is from its Muscles and its lubricity ; its brightness, from the external light ; its round figure rather denotes water, whose least particles are so, then fire whose figure is pyramidal. 'Tis never stiff, because of the fat wherewith it is stuff'd, and because it is destitute of flesh.

II.  
Of Painting.

Upon the second Point, it was said, That Painting is a sort of writing, by which many times that is express'd which cannot be spoken ; witness the story of *Progne* and *Philomel* : and as the latter represents things by letters, so doth the former by their natural figure ; so perfectly that it is understood by the most ignorant ; because it exhibits, in their proper colour, bigness, proportion, and other natural accidents : whereas Writing makes use of characters and figures which have no affinity with the things denoted by them, but only signify the same by the institution of men, who therefore differ in Writing, but all agree in painting : Both the one and the other (like all Arts whose scope is imitation, as Oratory, Statuary, Sculpture, Architecture, and many others) depend upon the strength of the Imagination ; and that Painter succeeds bests who hath in his mind the most perfect idea of his work. And because a Painter is to imitate every thing, 'tis requir'd to his being a Master that he be ignorant of nothing ; particularly he must know both the natural and artificial proportions and agreements of things with their several modes and uses. And where there are three ways of representing ; the first in surfaces, by flat painting ; the other in bodies themselves, which belongs to Statuary and the Plastick Art ; the third between both, as Graving and Carving : Painting is the most difficult, and (consequently) the most noble. For it must so deceive the sight, as to make cavities, folds, and bosses appear in a flat surface by the help of shadows ; which although a meer nothing, because but a privation of light, yet they gave all the gracefulness and value to Pictures. For the way of painting without shadows us'd in *China* being nothing but a simple delineation without hatchment, as it is very excellent



lent so 'tis exceeding rare; and being not us'd amongst us cannot come into comparison with the rest. Whereas Sculpture and Statuary consisting only in paring away the overplus of matter, or, if the matter be fusible, in casting it into a mould, made from the original (as the moulds of Plaster are from the faces of persons newly deceas'd) need less industry.

The Second said, Although Painting be sensible and visible, yet it belongs to very few persons to judge well of it; witness *Alexander*, who going to see *Appelles*, and offering to talk concerning Painting, he spoke so ill that the Apprentices of that Artist could not forbear laughing. Indeed Painting is one of the noblest parts of the Mechanicks, and ought as well to be rank'd amongst the Mathematicks as Astronomy. For if the reason of the Celestial motions gave cause for accounting this Science amongst the Mathematicks, more justly may the reason of the motions and proportions of mans body, the object of Painting, more admirable and of which more certain and real knowledge may be had than of those remote bodies, deserves to be of that rank; considering that it makes use of the same Mathematical Rules. Proportions, whose Rules are so infallible that seven excellent Statuaries very distant one from the other, being employ'd to make a brazen *Colossus*, perform'd their tasks by the precepts of their Art; and the parts which each of them made severally being put together represented a well proportion'd man. According to which proportion a mans body must be eight lengths of his head; from the left corner of the eye to the tip of the Ear is to be twice the length of the Eye; the Feet and Hands stretch'd forth, equally distant from the Navil; and such other remarks.

The Third said, The reason of the measures and proportions observ'd in Painting consists principally in four points, *viz.* in the form and figure of the thing represented, which is taken from the visual rays; in the shadow, which is to be taken from the rays of light; in colour, which is to imitate the natural; and in the handsome posture or situation of the thing painted. For Painting is the imitation of the affections of bodies, with reference to the light, made upon a solid Plane. Hence a face is otherwise represented under the water than bare, distant then neer, in the Sun-shine then in the shadow, by Candle-light, or Moon-light. And though the Painter represents also the dispositions of the soul, as anger or sadness, yet he doth it always by the features and qualities of the body.

The Fourth said, They who blame Painting and Statuary, because they represent unfitting objects, and gave occasion to the Idolatry of antiquity, may as justly blame beauty because 'tis sometimes the occasion of sinning. Painting hath this preëminence above all Arts, that it imitates God more perfectly than they; for God was the first Painter when he made man, the goodliest piece of the world, after his own image and likeness;



and all the blest spirits are but contracted copies of so perfect an original. 'Tis that which frees the body from the tombe, and, like a second table after shipwrack, preserves the memory of virtuous men, renders present those who are absent, and makes almost as strong impressions upon our Soul as the thing it self; witnesse the friendships of the greatest personages of the world contracted by its means. And as if the desire of portraying it self were natural to all things, there is no body but incessantly produces its own image; which flies and wanders in the Air, till it meet with some solid and smooth body whereon to represent it self; as we see in Looking-glasses, and polish'd marble, where the images are much more exact then those which Art draws with a pencil, yea, then their own originals, of whose corporeal matter they are wholly divested. And (as the beginning of all Arts are rude) this of Painting is attributed to the Daughter of *Belus*, who observing her Fathers shadow upon a wall, delineated it with a coal. For *Pourtraiture*, invented by *Philocles* the Egyptian, is ancienter then Painting, invented either by *Gyges* the Lydian in *Ægypt*, according to *Pliny*; or by *Pyrhus*, Cousin to *Dædalus*, according to *Aristotle*.

The Fifth said, That in Painting, as in other disciplines, Ignorance of the principles is the cause that so few succeed well in it. These principles are the methodical proportion of Mans Body, Perspective, the reason of shadows, Natural Colours, Designing, and History, all which must be found in a good Piece; and the defect of some of them (as it frequently happens) causes us to wonder, (though we know not the reason) that there is commonly something in all draughts that does not satisfy our Minds. For oftentimes when all the rest is good, Perspective hath not been well observ'd, or the Design is nought, or the History ill follow'd. But as things are the more to be esteem'd which are the most simple, so there is more of wonder in Painting to the life with a coal, (as *Appelles* did before *Ptolomy*, to denote a person to him whom he could not name) then with colours, the least part of Painting, which consists properly onely in proportion; and this being the most divine action of Understanding, 'tis no wonder if there be so few good Painters. For they are mistaken who place the excellence of painting in the smallness of the strokes; because they fancy that *Appelles* was discover'd to *Protogenes* by having made a smaller line then he. For, on the contrary, the most excellent strokes of Masters are many times the grossest; and that this proportion may be exact, it must imitate not onely particular subjects, but generally the species of every thing. Which *Michel Caravague* neglecting to do about 90. years since, and instead of following *Albert Durer's* excellent Rules, addicting himself to draw onely after the life, hath lead the way to all his successors, who care not for his Rules, but give themselves onely to imitation; and this is the cause of the defects of painting at this day.

C O N-



## CONFERENCE LIX.

## I. Of Light. II. Of Age.

I. Of Light.

**I** Conceive (with a learned Physitian of the most worthy Chancellor that *France* ever had, in his Treatise of this subject) that Light is of two sorts; one radical and essential, which is found perfectly in the Stars, the fire, and some other subjects, but imperfectly in colour'd bodies, because Colour is a species of Light; The other secondary and derivative, which is found in bodies illuminated by that Light. Both are made in Transparent Bodies; those of the Stars, in the Heaven, and that of flame and bodies ignited in the fire; whiteness, in the Air; and blackness, in the Water. But these transparent bodies must be condens'd, that those Lights and Colours may appear; and therefore the principle of Light is in transparence alone, whereof neither purity, rarity, tenuity, nor equality of surfaces, are the causes; but they all proceed from the quantity of matter; some bodies having more matter than others, not by rarity alone, or local extension, but by formal extension, or internal quantity; and consequently, that a little matter under a great internal quantity, is the principle cause of tenuity, rarity, and transparence, to which the evenness of surfaces is also requisite in gross bodies. So that Light consists in a proportion between the quantity and the matter of its subject; and Light is great when the matter is little under a great quantity, as in the Heavens; on the contrary, the body is dark, when a very small quantity is joyn'd to a great deal of matter; as is seen in the Earth. To prove this, you must observe that all simple bodies are luminous, excepting the Earth, which is opaque; and we find Light in sundry animated bodies, as in the Eyes of Cats, and of those Indian Snails which shine like torches, and in our Gloe-wormes, whose Light proceeds from their Spirits; which being of a middle nature between the Body and the Soul, are the least material thing in the world. Whence it follows that Light is a form with the most of essence amongst sensible formes, as obscurity hath the least.

The Second said, The wonder of *Marsilius Ficinus* was with reason, how 'twas possible that nothing should be so obscure as Light. For if Transparence be the subject of it, why doth Crystal heated red hot in the fire come forth more luminous, and less transparent then it was? The same may be said of Rarity; for we see that Air and *Aqua Vitæ* are well rarify'd by the fire which inflames them, but cease to be transparent as soon as they are made more rare and luminous; which is an evident sign that rarity and transparence are not causes, nor yet conditions of Light. So the whole remainder of Heaven is lucid; but

onely



onely the less rare parts, and such as you might call vapours in respect of the pure Air. And the light which proceeds from the Sun, the most luminous of all those celestial bodies, would never be visible, but be depriv'd of all its effects which are heating and enlightning, if it were not reflected by some solid body. Then it not onely appears, but exerts its activity. And if things be produc'd by the same causes which preserve and multiply them, the solidity of burning mirrors made of Steel, the hardest of all metals, which make the Sun-beams do more then their own nature empowers them to, shews sufficiently that their Light cannot arise from a rare and diaphanous cause. Nor may the Light of rotten wood be assign'd to its rarity alone, since many other bodies of greater rarity shine not at all; nor that of Gloe-worms and Cats Eyes to their spirits, since the flesh of some animals shines after their death; as 'tis affirm'd of Oxen, that have frequently eaten a sort of Moon-wort; and not onely the scales of divers fishes shine after separation from their bodies, but sparkles of fire issue from the hair of some persons in great droughts, whereunto the spirits contribute nothing. Which would perswade me to believe, that Light is a Form, to the introduction whereof several conditions are requisite, according to the diversity of subjects; just as we see the Souls of some irrational creatures need great dispositions for their reception, a Brain, a Heart, and a Liver, with their dependances; whereas others, as Insects, require lesse, and are contented with something that may supply this defect; some are generated in an instant, without any apparent preparation, as Frogs in a summer showre; and therefore to assign the cause of Light, is to seek the reason of Formes, which is unknown to us. Which similitude the vulgar speech confirms; for the people say, The Candle is dead when it is extinguish'd, presupposing that it had life before; as an Animal hath so long as its form is conjoyn'd with its body. Moreover, Fire hath a Locall Motion\* (as Animals have) to obtain its food.

The Third said, Light is a substance; for it was created by God; but 'tis a Sixth Essence, more subtile then that of Heaven, which is call'd a Quintessence in respect of the Four Elements. A substance which subsisted before the Sun, having been created three dayes before it; and nothing hinders but it may be communicated in a moment from Heaven to Earth, since the intentional species of visible things is so. Indeed, whereunto shall we attribute the effect of Light, which heats at distance, and blinds being too great, which colours and gives ornament to the Universe, if it be not a substance? And the Penetration of Dimension, objected hereunto, is salvd by saying that it hath no more place here, then when an Iron is red hot with the Fire, which yet none will affirm to be an accident; and neverthelesse it enters into the whole substance of the Iron, and Light with it; for 'tis transparent and luminous at its centre when 'tis throughly heated in the Fire.

The



The Fourth said, The excellence of Light appears, in that nothing hath greater resemblance with the Deity. Which made some Heathen Philosophers say, that Light is Gods Body, and Truth his Soul. Moreover, the Scripture teaches us, *that God dwells in inaccessible Light*. And the blessed Spirits are stil'd Angels of Light, as Dæmons Spirits of darknesse. Light enlivens and animates all things, it rejoyces all Creatures by its presence; Birds begin to sing, and even flowers to display their beauties at its arrival. And because Nothing gives what it hath not, therefore some have conceiv'd, that Light, the enlivener of all the world, is it self indu'd with life, and that 'tis the Universal Spirit, and the Soul of the whole world. Whence *Plato*, in his *timæus*, brings no other argument to prove that Fire is an Animal, but that it is luminous. And, in the sixth Book of his Commonwealth, he makes the Sun (who is the known Father of all living things) the son of Light; without which *Pythagoras* forbade to do any thing. Moreover, it hath no contrary; Darknes being oppos'd to it onely *privatively*. For its being is so excellent that Nature found not her self so able to make any thing that might be equall'd with it, that might alter and corrupt it, as the nature of Contraries require; whereas all Qualities have each their particular enemy. And 'tis upon this very reason that Light acts in an instant; because having no contrary quality to expel from its subject, it needs no time or successive motion, which is necessary to other qualities, as to heat, to warm cold water.

The Fifth said, Light is a real form produc'd in the *medium* by a luminous body; *Aristotle* calls it the act of the *Perispicuum* as it is *Perispicuum*. This Form is accidental, and falls under the head of Patible Qualities, because 'tis sensible by it self, which is the property of accidents alone; (whereas substance is not sensible, (that is, falls not under the perception of sense) but by means of accidents;) and as it is the principle of action, which belongs onely to a Quality. For it cannot be a corporeal substance, and *Democritus* and *Epicurus* conceiv'd, saying, that Light is an Emanation of particles, or little bodies from a lucid body; or as they who make it a species of fire, which they divide into That which burnes and shines; That which burns and shines not, and That which shines but burns not, which is this Light. For no natural body is mov'd in an instant, nor in all sorts of places, as Light is; but they have all a certain difference of position or tendency, some towards the centre, others towards the circumference, and others circularly.

The Sixth said, 'Tis true, Light is not of the nature of our sublunary bodies, for it is not generated and corrupted as they are. It is not generated, since generation is effected by corruption of one form, and introduction of another. But we have instances of incorruptible Light even here below; as that in the Temple of *Venus*, which could not be extinguish'd nor consum'd, though neither oyle nor wick were put to it; and that



that other found in a Sepulchre where it had burn'd for fifteen hundred years, but as soon as it took Air went out. And indeed the subtilty and activity of Fire is such, that it may be reasonably conceiv'd to attract the sulphurous vapours for its subsistence, which are in all parts of the Air, but especially in Mines, whose various qualities produce the diversity of subterranean fires, as to their lasting continuance, and interval; which some compare to the intermitting fevers excited in our bodies by a præternatural heat.

II.  
Of Age.

Of the Second Point it was said, That Age is the measure of the Natural Changes whereunto Man is subject by the principles of his being, which are various according to every ones particular constitution; some being *puberes*, having a beard, or grey haire, or such other tokens, sooner then others, according to the diversity of their first conformation: Whence ariseth that of their division, *Aristotle*, following *Hippocrates*, divides them into Youth, Middle Age, and Old Age; or according to *Galen*, into Infancy or Child-hood, vigour, or Man-hood, or old age; or according to most, they are divided into Adolescence, Youth, the Age of Consistence, and Old Age. Adolescence comprehends *Infancy*, which reacheth to the seventh year; *Puerility*, which reacheth to the fourteenth year; *Puberty*, which reacheth to the eighteenth; and that which is call'd by the general name, *Adolescence*, reaching to the five and twentieth; Youth, which is the flower of Age, is reckon'd from twenty five to thirty three years of age; Virile, and Consistent Age, from thirty five to forty eight, where Old Age begins, which is either green, middle, or decrepit. These Four Ages are the Four Wheelles of our Life, whose mutations they denote; the First, being nearest the original, hot and moist, symbolizing with the blood; the Second, hot and dry, with Choler; the Third, cold and dry, with melancholy; the Fourth, cold and moist, with Phlegme, which being contrary to the radical humidity leads to death. Now if it be true (that they say) that life is a punishment, and an Abridgement of miseries, Old Age, as being nearest the haven and the end of infelicities, is the most desirable. Moreover, being the most perfect by its experiences, and alone capable to judge of the goodnesse of Ages, 'tis fit we refer our selves to the goodnesse of its judgement, as well in this point as in all others.

The Second said, Since to live is to act, the most perfect and delightful of all the Ages of life is that in which the functions of body and mind (whereof we consist) are best exercis'd; as they are in Youth (which alone seems to dispute preheminance with Old Age) not onely by reason of the bodily health and vigor which it possessees in perfection, and which supplies Spirits and Courage for brave deeds, whereof that declining Age (which is it self a necessary and incurable malady) is incapable; but also in regard of the actions of the mind which is far more lively,



lively, inventive, and industrious in young persons then in old, whose wit wears out, grows worse with the body; whence came that so true Proverb, That old men are twice children. For 'tis a disparagement to the original of wisdom, to deduce it from infirmity, to name that ripe which is rotten, and to believe that good counsels can come only from the defect of natural heat, since according to his judgement who hath best described wisdom, old age causes as many wrinkles in the mind as in the face; and we see no souls but as they grow old smell sower and musty, and acquire abundance of vices and evil habits, of which Covetousness alone inseparable from old age (which shews its weakness of judgement, to scrape together with infinite travel what must shortly be forsaken) is not less hurtful to the State than all the irregularities of youth. Now if the supream good be in the Sciences, then the young men must infallibly carry the cause; since sharpness of wit, strength of phancy, and goodness of memory, (of which old men are wholly destitute) and ability to undergo the tediousness of Lucubration, are requisite to their acquisition. If it consists in a secret complacency which we receive from the exercise of vertuous actions, then young men, who, according to Chancellor *Bacon*, excel in morality, will carry it from old men; it being certain that the best actions of life are perform'd between twenty and thirty years of age, or thereabouts, which was the age at which *Adam* was created in Paradise; as our Lord accomplish'd the mystery of our Redemption at the age of 33 years, which shall also be the age at which the blessed shall rise up to glory, when every one shall enjoy a perfect youth (such as given to the Angels) and put off old age, which being not much different from death, may (as well as that) be call'd the wages of sin; since if our first Parent had persisted in the state of Innocence, we should have possess'd the glory of perpetual undeclining Youth. Moreover, 'tis at this Age that the greatest personages have manifested themselves; we have seen but few old Conquerors, and if there be any, he hath this of *Alexander*, that he aspires to the conquest of another world, not having long to live in this. Wherefore in stead of pretending any advantage over the other ages; old men should rather be contented that people do not use them as those of *Cæa* and the *Massagetes*, who knock'd them on the head, or the ancient Romans who cast them head-long from a Bridge into *Tiber*, accounting it an act of piety to deliver them from life, whose length was displeasing to the Patriarchs; the Scripture saying, that they dy'd full of days.

The Third said, That the innocence of Infants should make us desire their age; considering that our Lord requires that we be like them, if we would enter into his Kingdom; and the Word of God speaks to us as we do to children. Moreover, since Nature could not perpetuate infancy, she hath found no sweeter Anodyne to the miseries and sadnesses of old people



then the sight of children, (whom they extreamly love) and then the memory of things done or learn'd in their non-age; which the less distant it is from its source, the Deity, the more it partakes thereof.

The Fourth said, Youth hath too many extravagancies, to be accounted happy; nor can Child-hood and Old-age deserve that title, since 'twould be contrary to the order of nature if the extreams contain'd more perfection than that which is in the middle, where she hath establish'd the vertue of all things. For as for Child-hood, its weakness sufficiently shews that it hath not wherewith to content it self, since it needs the help of others, and is an object of pity, a passion that never arises but from misery. There's no commendation in its innocence, which depends upon impotence, and the imperfection of the souls operations; and they as much want the will and power to do well as the intention and means to do ill. But true Innocence consists in the action of difficult good. If Infancy hath no apprehension of the future, it receives the present evil with much more pain, and shews it self as sensible to the least displeasures, as incapable of consolation and prudence to avoid them; if it wants fear (though indeed every thing terrifies it) the hope of good to come never anticipates and prolongs its enjoyment. In a word, he cannot be happy who hath not the knowledge of his happiness, which Children cannot have while they want the use of Reason, which is peculiar to Man. Old-age, which is a second Childhood (and the more to be disliked in that it always grows worse) partakes all the defects of the first age, and hath this besides, that the desires awakened by the remembrance of pass'd contentments are constantly jarring with his impotence; and the ardency of getting and possessing hath a perpetual contract with the necessity of forsaking and losing; pains and aches, the forerunners of death, daily attempt his patience, and there's no hope of other cure but the extremity of all evils, not-being. Infancy therefore is like the Spring, which hath only flowers, and expects the fruits afterwards; 'tis an age of hope, without enjoyment; Youth hath only Summer fruits, of little lasting; Old-age is a Winter, without either flowers, or fruits, hath nothing but present evils in possession, is to fear all, and to lose all. But Virility or Manhood holds the middle between them both, and resembles Autumn, denoted by the horn of Plenty, possesses the happiness of life, enjoys the present goods, and by hope anticipates those to come; the soul in this age commonly corresponds with the body; its faculties make an agreeable symphonie with the actions hereof, and the sweet union of a reciprocal complacency. On the contrary, in childhood the soul seems not yet well tun'd to the body; in adolescence it always jars with the appetites of the Senses; and in old age it altogether disagrees with it self, and by a sudden departure endeavours to have its part separately.



CONFERENCE LX.

I. Of Quintessence. II. Which is the most in esteem,  
Knowledge or Vertue.

I.  
Of Quintes-  
sence.

THE mind of man, as it is the purer part of him, so it is always pleas'd with that which is most pure. In conversation it loves the most refin'd, and prefers simplicity, which is most pure, above the windings and double-dealings of deceivers. Amongst Metals it prefers Gold and Silver, which are the purest, above Lead, Iron, and other imperfect and coarse Minerals. In food, Physick and the stomach of the diseased chuse that which is most freed from its gross and unprofitable parts. Among sounds, the most subtile are the most charming. Among artificial things, we find more sprightliness in the gracefulness of small works then in others. In the Sciences, the more subtile a reason is, the more 'tis applauded. But being health is the greatest, yea the only true good, being the foundation of all the rest; and sickness the greatest, yea the only real evil of our life; therefore our minds have herein most sought after subtilty, especially to subtilize aliments and medicaments; not but that there may be a quintessence as well drawn from other things, but it would not be so useful. Now 'tis to be observ'd that this word is taken either generally for any body depurated from its more coarse matter, as Spirits, Waters, and Oyls; excluding Magisteries which retain the intire substance of the bodies from whence they are taken, only render'd more active by its subtilization: or else it is taken properly; and in this accepti-  
on Quintessence is some thing different from all this, and is compar'd to the soul which informs the body.

The Second said, That in every compound body there is a mixture of substance, besides that of qualities; whence arise the occult properties and forms of things, which is their fifth Essence: 'tis no Body, for it takes not up place; nor yet a Spirit, since 'tis found also in inanimate bodies; but some thing of a middle nature between both, and neither one nor the other. Of which kind we want not examples in Nature; Shadow, the Image in a Glass, yea all intentional species, are neither body nor spirit. Now that it takes not up place, may be prov'd; because a bottle of Wine expos'd unstop'd to the air, is not diminish'd in its quantity, yet loses its taste, smell, and other qualities; by which change it becomes another thing from what it was before; an evidence that it hath lost its form, which is nothing else but the Quintessence we speak of; and should another body receive the same it would have the qualities the Wine lost, which after separation of them is no more Wine then the



carcase of a man is a man after his soul is departed. Moreover, that which nourishes in food is not a body, but the form or quintessence of it ; since by the observation of the most Inquisitive, 'tis found that the excrements of all the concoctions equal the aliments both in weight and quantity, as the Urine of Drunkards is commonly as much as the Wine they have drunk, and Mineral waters are voided in the same quantity that they were taken. This fifth Essence is found every where, in the Elements and in compound bodies. In those 'tis the purest of the Element impregnated with the Universal Spirit ; in these 'tis likewise the purest part of the compound animated by the same Spirit.

The Third said, There is no other Quintessence but the Heaven in comparison of the Elements ; in the mixtion whereof, the Heaven concurs as an universal Agent, whose influence (which is the soul of the World) determining the matter informs and renders it active ; thus the Stars produce Metals even in the centre of the Earth. Hence the word Heaven is taken by Chymists for Quintessence, because of the simplicity and activity common both to the one and the other. But, because it cannot fall under the cognisance of our Senses, in regard of its æthereal nature, the most searching Naturalists give its name to the most subtile extracts, especially such as are made by fire ; although the same be not eternal, as Quintessence ought to be, but only of long duration.

The Fourth said, 'Tis the humour of unsettled heads, instead of cultivating the precepts of antiquity, to go about to fabricate new ; and hence comes the contemplation and the extraction of Quintessences. For (besides that 'tis not certain that what is drawn out of a Plant was there before ; it being probable that the action of the fire may have introduc'd it in part, or in whole, into the *compositum*) this Quintessence hath not the conditions requisite to merit that name, because it has both first and second qualities ; and consequently is not only corporeal, but also corruptible. And if it were incorruptible, it would be wholly unprofitable, yea hurtful to mans body, since it could not be chang'd or alter'd by it, and none but poysons are such. For Medicaments and aliments are alter'd by our nature. But however, the Empyrema or Adustion which these Quintessences commonly acquire in the fire renders their activity too great and disproportionate to our temper : Which is the cause that things already excessive in quality, as Salt and Vitriol, are very hurtful being made into Quintessences ; because there is no more proportion between them and us. And therefore I am of the judgement of the Vulgar, who never speak of those drawers of Quintessences but with contempt, considering that they make profession of a thing which is not ; and which if there were any such, would be either unprofitable or hurtful.

The



The Fifth said, That the Chymical Quintessence is an æthereal, celestial, and most subtile substance, compos'd of the *Salt*, *Sulphur* and *Mercury* of bodies dissolv'd, spoil'd of all their elementary qualities, corruptible and mortal, united to a spiritual body, or corporeal spirit, which is the *medium* and bond uniting bodies and spirits in nature; and call'd by some, for its rarity, *Elixir*; for its wonderful use in preserving the health of mans body, the Sovereign Medicine by which they hold that youth may be restor'd, and all sorts of diseases cur'd; it not being requisite in its action that it be alter'd by our natural heat, which, on the contrary, it changes and perfectionates, taking the part of nature, as all poysons destroy it. And 'tis certain that since there are bodies which are barely alter'd by our nature, as aliments; others, which are alter'd by it, but reciprocally alter it, as medicaments; others which destroy it without being alter'd by it; so there is a fourth sort which preserves it without being alter'd by it, which is the Quintessence, thoroughly separated from the four Elements, yea from every thing that enters into the composition; as is seen in Treacle, whose vertue proceeds from some body which is not any of all the ingredients, but results from them all together after convenient fermentation. And, possibly, they who blame this curious inquisition do it to decline the pains, or because they understand it not; as 'tis said the Fox that wanted a tail counsell'd all his fellows to cut off theirs.

The Sixth said, Being all the Chymical Principles are resolv'd into our four Elements, their Quintessence which is compounded thereof will be nothing else but these Elements more pure and refin'd, and consequently no more a Quintessence then all mixts are in respect of the Elements whereof they consist. For a Quintessence must be a simple body, not any of the four Elements, much less compounded of them; and Heaven alone is such; whatever certain Philosophers have said, some holding it to be onely a continuation of the air; others, that 'tis of an igneous nature, because its denser parts appear such, and its name *Æther* signifies Fire; some, that 'tis a fluid and aqueous substance; others, on the contrary, a pure and solid earth. For Heaven hath a simple, to wit, a circular motion, which, as the most perfect of all, ought to belong to the most noble of all bodies; and this circular motion belongs not to any of the Elements, since each of them moves in a direct line; two from the Centre, and two others towards the Centre. But a simple body cannot have two motions: it follows therefore that Heaven hath a motion different from that of the four Elements; since motion, particularly local, the first and commonest of all is an effect of the nature of every thing which is the principle of motion. Moreover, Heaven alone is exempt from all elementary and corporeal qualities. 'Tis neither heavy nor light, because it neither moves towards the Cen-



Centre nor the circumference, but about the Centre. 'Tis neither generated nor corrupted, because it hath no contrary. And for this reason it hath neither augmentation nor diminution, inasmuch as these are species of generation and corruption. 'Tis not any way alter'd, since alteration is caus'd by the action of some contrary. Lastly, it cannot enter into any composition; and, consequently, there is indeed a Quintessence, but 'tis not in sublunary bodies.

II.  
Which is  
most in esteem  
Knowledge  
or Vertue.

Upon the second Point, it was said, That 'tis first requisite to remove the equivocation of those who comprehend Knowledge under Vertue; since by the word Vertuous we understand, here, not a *Virtuoso*, but a good man; who though he deserves to be more, yet is always less esteem'd than a knowing or learned man: because every one esteems that most which hath most shew and price. Now a vertuous man is not only destitute of this, but his greatest vertue consists in not seeking vain-glory; whereof the greatest part of mankind being adorers, and every one affecting such as resemble themselves, therefore the learned is commonly esteem'd above the other. Moreover, the reasoning of man being wholly deprav'd since the Fall, he is rather for Verisimilitude than Verity. Now the learned easily persuades that he is more to be esteem'd than the vertuous, who doth good because it is good, and not to be esteem'd for it; whereas the other is like those bad Officers who make amends for their ill deeds by fair writing. So *Demosthenes* having run with the first from the Battel, made such an excellent Oration, that he was commended for that which deserv'd perpetual shame. But that which makes vertue less priz'd, is, because it falls upon all sorts of conditions and sexes; a poor man and a poor woman exercising not less vertue in supporting their misery with constancy, than a great Captain in overcoming his enemy: and learning being not so common, especially that which is sublime, 'tis the more esteem'd for its rarity. They who judge of the worth of mens actions account of them according to the pains that there is in performing them. But 'tis judg'd more painful to become learned than to live well. Others say, 'Tis best to be vertuous for the other world, and knowing for this; good Nature, which is no way suspicious, being ordinarily subject to the deceits of the more crafty. But I conceive, that 'tis best to be vertuous both for this world and the other too. For if you be in prosperity it serves to set off and illustrate your Vertues; if in adversity (which nevertheless may be declin'd by the prudence whereof the vertuous is not destitute) Fortitude and Temperance make it judg'd less; and Justice makes us reflect upon others who are in a worse estate. And as for the other world, vertuous actions merit grace, which is the seed of eternal glory, a reward to which knowledge alone cannot intitle us; for *Solomon* calls it a vain travel given to men, whilst the



the poor of spirit are called happy. What then ought we to know? To be vertuous, to the end that the Sciences may be subservient to the Vertues their Mistresses.

The Second said, Science is so much inferior to Vertue as the Means are to their end, since all Sciences are only in order to acquire Vertue, without which they are but troublesome talk, and dead notions; and since such knowledge as edifies not the Conscience is but vain, Divinity, the prime of all Sciences, proposes Piety to it self; Physick, Charity; the Law, Justice. Yea they all seem to have no other aim but to render homage to Vertue, and cherish it with praise, its only aliment: the ordinary employment of learned persons being to extol the vertuous. If few persons embrace Vertue, 'tis because they know it not; for 'tis one of those things, a sight whereof is sufficient to make it lov'd; and were it not veil'd, or cover'd with rags, but appear'd wholly naked, its charms would attract all the world. Hence we so admire and honour the few that are vertuous, who have in all times been extoll'd above other men. Moreover, Divines hold that every sinner is ignorant; and that a man cannot prefer Vice before Vertue without being blind of Understanding.

The Third said, 'Tis true, if we judge of the excellence of Vertue and Knowledge by their necessity, Vertue will carry it; because 'tis much more necessary, yea alone absolutely so to a State, which rather resembles a Cavern of robbers or wild beasts when Vertue is banish'd; whereas whole States and Kingdoms very easily and many times profitably dispense with the Sciences. And the gross ignorance of the Ancients did not hinder, but that they left flourishing States. But because on one side the most excellent things are not always the most necessary, as appears by the Mechanical Arts, we must inquire the preeminence of Knowledge or Vertue upon another ground. They are both habits, whose excellence is taken from the subjects wherein they are; so the habit of speaking well is more excellent than that of Painting, and Painting then Dancing; because the Tongue is more noble than the Hand, and this then the Feet. Now Vertue is a habit of the Will; Knowledge a habit of the Intellect, which as much surpasses the Will as Contemplation do's Action. For whether we consider the actions and manner of acting of either of these Faculties, or their objects, the Will yields to the Understanding; which being the Eye of the Soul governs all the Faculties, guides the Will, of it self blind, and incapable of any action without the light of the Intellect. Moreover, compare the Intellectual Vertues with the Moral, and you will see what difference there is between *Sapience*, which is the knowledge of the highest things by their Causes; *Intelligence*, which is the intuitive knowledge of first Principles; in brief, *Science*, *Prudence*, and the *Arts*, on one part; and on the other, *Temperance*, *Courage*, *Justice*, and the other moral Vertues, which



which ordinarily have no other employment but to keep the Concupiscible and Irascible appetites within bounds, though they can never bring it to pass without Reason. The Object of the Understanding which is Entity, as such (because in this sense 'tis intelligible) is also more noble than that of the Will, namely, Entity, as good and desirable; because Entity, as such is first, more simple and more abstracted than Entity, as good; which is only a passion of Entity. And this Entity which the Understanding considers is not only material and singular, but spiritual, universal, and infinite. Yea it not only knows that which is extrinsic to it self, but by a special privilege it knows it self, and by an action wholly divine reflects upon it self and its own actions. And as if it were not content with its jurisdiction it knows not only that which is, but also that which is not, entities of Reason, and Possibilities.

The Fourth confirm'd the preceding Judgement, because all Moral Vertues depend on the Understanding in their production and conservation. For as we are led to good because we know it such by the Understanding, so the Virtues become vicious when they are destitute of Prudence, which is a Vertue of the Understanding, who alone gives law and weight to all the other Vertues which it guides. But what makes most for Knowledge, 'tis peculiar to Man, who alone of all Animals knows things by their proper causes; whereas Vertue is common to him with brutes, from whom he many times learns a lesson. But if you deny them the title of Vertue, at least they have the shadow and image of it; the Pismire, of diligence; the Serpent, of prudence; the Lion, of courage, and so of the rest; but not any of Science, which is the only good and difference of Man; and once gotten is so inseparable from him, that it alone of all his good accompanies him into the other life, in which he is abandoned by all Moral Vertues, as being then unprofitable; because they are but the means to attain beatitude, which most Divines make to consist in the knowledge of God, who alone hath an infinite knowledge of all things, but hath nothing to do with Vertue, which presupposes Vice to be subdu'd.

The Fifth said, That the promise of knowledge made to the first Man by the Devil, having triumph'd over all his Virtues, shews that Science is sometimes stronger than Vertue; but this having the promises of reward both in this and the other life; and Knowledge, on the contrary, being often blam'd of puffing up Mens Minds and call'd vain, determines the Question to the advantage of Vertue.



CONFERENCE LXI.

I. Which is hardest to endure, Hunger or Thirst.

II. Whether a General of an Army should endanger his person.

THE natural heat of Man, which lasts as long as his life, is preserv'd by reparation, and avoiding of suffocation; the former by food, and the latter by the Air which ventilates it, and refreshes its ardour. The greater this heat is, the more need it hath of fewel and refreshment. On the contrary, among Animals, those that have no blood, as most Insects, and those that have but little, as Fishes, who consequently have but little heat, (since we have as much heat as blood) have lesse need of ventilation, and therefore are destitute of Lungs, excepting Whales and Dolphins, as having more heat. Now as the Air repairs our spirituous parts; so Aliments, (to wit, meat and drink) restore our solid and liquid parts, which are in continual decay. And because their continual reparation was absolutely necessary to the conservation of the Creature, therefore Nature gave it an Appetite and desire of them; which if it be of meats, is call'd Hunger; if of drink, Thirst; either of them accompany'd with pain and pleasure; the pain, to give notice of the time to take food; the pleasure, to make these natural actions perform'd the more willingly. All which, for the same reason, Nature has season'd with pleasure, so long as they are not excessive. Therefore being Pleasure and Pain stil follow one another in natural actions, it seems that the one ought to be the rule of the other: And so, since there is more pleasure in drinking then in eating, there is also more pain in thirst then in hunger. Now that drinking is more delicious then eating is manifest, because drink refreshes the body almost in an instant, without disturbing it, as food does, restoring it but by little and little, and so with less pleasure, which is again diminish'd by the agitation caus'd in the head, by the motion of the nether jaw for the grinding of the meat. Yea, if we may believe good drinkers, as experienc'd in this matter, they eat onely to irritate their thirst, to the end they may have more contentment in drinking.

The Second said, The more necessary a thing is, the more painful is the want of it. Now the needs of thirst seem the more considerable, for that the absorption of humid substance is more speedy then that of dry, which consequently hath not so urgent necessity of being repair'd as the humid. Moreover, most drinks allay Hunger too as well as thirst; and therefore there is no more excellent remedy against a *Boulimie*, or Doggish Hunger then Wine; whereas, on the contrary, eating provokes

I.  
Which is  
hardest to en-  
dure, Hunger  
or Thirst.



Thirst instead of appeasing it. And this Thirst is not onely intollerable in health, but almost in all diseases; for, excepting the aforesaid *Boulimie*, all sick persons prefer drinking before eating, as having more need of it; yea, those to whom eating is necessary, (for many are cur'd by abstinence) their food must ordinarily be liquid, that is to say, of the nature of drink; the drynesse of solid food requiring a greater strength of stomach then sick persons have, for reducing it into Chyle, whose form is liquid; Nature being unable to accommodate it self to any other. All which evidenceth that Humidity is the more necessary, and also the more difficult to be forborn.

The Third said, Experience determines the Question to the advantage of Hunger, since none of us returning home to a meal he begins it with drink, unless be indispos'd. And even they who have intention to begin it so do it in preparation to eating. Moreover, Thirst is only a mutation of quality, which is for that reason most properly call'd Alteration; because the humidity of the superior orifice of the stomach, in which alone Thirst resides, is then found alter'd; and chang'd into drynesse: But Hunger is an inanition and defect of the substance requisite to fill the vacuities of our parts. So that Hunger surpasses Thirst, as much as substance does an Accident. For these Definitions, that Hunger is a desire of Hot and Dry, as Thirst is of Cold and Moist, seem to be defective; not onely because Hunger would never be appeas'd by an exhalation Hot and Dry, or by any other body of the same nature intromitted into the stomach, unless it were proper to nourish and mix'd with the other qualities; but also because Hunger and Thirst are pains, and particularly Hunger, a Convulsion of the stomach, and not Desires or Appetites, whose seat is in the Heart, and not in the Ventricle. And if Hunger were onely after Hot and Dry, then Purslane, Lettice, Melons, and other Cold and Moist Aliments would never satisfie it; as likewise broths would not allay Thirst when taken (as 'tis the custom) actually Hot, nor yet Wine which is hot in power, and heats effectually instead of refrigerating, if Thirst were onely after Cold and Moist. But that which shews Hunger to be more insupportable then Thirst, is, that many Hydropical persons, and others, have liv'd some years without drinking; whereas no body ever could spend much time without eating, unless by miracle; and Famine is often reckon'd among the scourges of God, but Thirst never.

The Fourth said, Hunger is caus'd by the continual action of heat upon our substance, which, to secure it self, by help of the same heat attracts what ever is most fluid and moveable in the next part; this again draws what it can from its neighbour, to supply fuel to this heat. And thus successively from the extremities of the body to the mesaraick veins in the centre; which, to give supply to this continual suction, powerfully drain out of the guts the purest of the aliment, as these do from the stomach;



stomack ; which being exhausted, the acide humour diffus'd in the bottom of it, whither 'tis convey'd from the spleen by the *Vas breve*, vellicates the internal tunicle, and causes a pain in it not to be asswag'd but by the application of Aliment ; and this they call Hunger, which also is increas'd by acid things. And this pain, according as 'tis more or less sensible, in regard of the acrimony or quantity of the acide humour, and according as the inside of the stomach is lin'd with natural mucosity, makes Hunger to be more easily tolerated by some, then by others. Thirst is a Desiccation, and Calefaction of the upper orifice of the stomach, greater or less according to the degrees of heat, or as any defluxion of fresh or salt Phlegme descends from the Brain upon the orifice. So that they whose natural or accidental heat is less endure Hunger and Thirst best. Which, to the end this Question, must be consider'd neither absolutely or respectively. In the first manner, since eating and drinking are equally necessary, thence Hunger and Thirst shall be equally insupportable. But comparing one Age, one Sex, and one Constitution with another ; Hunger will be more intollerable then Thirst to a Child, to a Woman, and to an Old Man, especially if they be Phlegmatick or Melancholy ; on the contrary, Thirst will be more difficult to endure by a young man if he be cholerick or sanguine.

The Fifth said, That the afflux of the melancholy humour may cause the Canine, but not that natural Hunger, which is only a suction made in the upper orifice of the Ventricle, perceptible by the Nerves of the sixth Conjugation, were the melancholy humour cannot come. Moreover, Nature, who alwayes takes the shortest way, makes the melancholy humour descend from the Spleen into the Hæmorrhoidal Veins ; otherwise that impure blood, and the most malignant of all the excretions, would infect the Ventricle, and by it the Chyle. And there being no humour that causes natural Thirst, 'tis not necessary there should be any to produce Thirst ; which I account more or less supportable, according to the several habits of Body ; to the fat, Thirst, and Hunger to the lean.

Upon the Second Point, That the value which Men put upon Valour, which is nothing else but a contempt of dangers, shews that those who would partake most of honour must also have the greatest share in the danger, according to the Proverb, None triumphs without fighting ; and if we take the opinion of Souldiers, who are the best judges in this case, they never so willingly resign themselves to any Leader, as to him that freely ventures his life with them ; it being no less incompetible for a General to advance himself, and get credit and Reputation in Armes without indangering his person, then for a Pilot to saile well upon the Sea without incurring the hazard of shipwrack. So that we may say of war, what is commonly said of the Sea, He

II.

Whether a  
General of an  
Army should  
endanger his  
person.



that fears danger must not go to it. The Civilians have the same meaning when they commit the charge of guardianships to those that are most qualifi'd to succeed, and there can be no honour without a charge; whence the words are promiscuously us'd in our Language. Moreover, as no Sermon is more eloquent than the exemplary life of the Preacher; so no Military Oration is so perswasive, or so well receiv'd by an Army, as the example of its General, when they see him strike the first blow; as, on the contrary, if he testifies any fear, every one taking his actions for a rule, and conforming thereunto, will do the same; he will not be obey'd but with regret, and through a servile fear of punishment, not out of a gallant sense of honour, because he that is most honor'd in the Army is most remote from blows; at least, the other Leaders and Officers will do as much, and all the Souldiers in imitation of them. In brief, we need but consider, how not only the *Marcelli*, the *Camilli*, the *Scipio's*, *Hannibal*, and many other Generals of Armies, but *Alexander*, *Cæsar*, and in our time *Henry* the Great, and the King of *Sweden*, all Sovereign Princes, were sufficiently venturous of their persons; and that it was not by not taking part in dangers, that they triumph'd over their enemies.

The Second said, That to know how to command well, and how to execute well, are two several Talents, and depend upon several abilities; they who are born to command, being unfit to execute; and, on the contrary, they who are proper to obey being incapable of commanding. Wherefore the Head of an Army, who gives Orders and Commands, must cause them to be executed by others. So the Judge pronounces the Sentence, and appoints Serjeants to put it in execution; the Physitian commands his Patient, who obeys his prescriptions; the Pilot, the Officers of the Ship, but himself Steers not. But that which should most restrain a General from acting in person, is, that he cannot in this occurrence preserve the prudence which is absolutely necessary to him. For the heat of Courage heightned by that of the Charge and the Encounter, being wholly contrary to the coldness of Prudence, which is inconsistent with the violent motions caus'd by the ardour of fury, commonly attending Valour, renders him precipitate, inconstant and incapable, for the time, to deliberate of fit means, to chuse them, and cause them to be executed. Moreover, the General being the Chieftain of the Army ought to resemble the Head; which derives sense and motion to the parts, yet stirs not for their defence, but on the contrary, employs them for its own. So the prime Captain ought to sway and manage the body of his Army by his Counsels and Orders; but not put his own person in danger, because upon his safety depends that of all the rest; who being destitute of a Chieftain remains like a body without a head, and an unprofitable trunk. Therefore Generals of Armies are compar'd to the heads of Cypress-Trees; which being once lop'd off, the stem never thrives afterwards. The



The Third said, The highest point of judgement is to distinguish appearance from truth, and in all professions 'tis very dangerous, though in appearance more honorable, to be carri'd to extreams, but especially in War, where there is not room for many mistakes. The General who exposes his life cannot be excus'd from ambition or imprudence; from the former, if he do's it without necessity; from the latter, if for want of having rightly order'd his affairs he sees himself reduc'd to that point. Whereas, as in Artificial Engines the piece which gives motion to the rest is immoveable; so the General who gives order to the main of the Army ought to have the like influence upon it: as the heart in the middle of the body, and the brain in the middle of the head, to transmit life and spirits to the whole body, and to occur to accidents both foreseen and unexpected. Otherwise, should the principal parts not be contented to follow the body, but change their natural situation, all the parts would be doubly inconvenienc'd; both because they would not know where to find them when they needed their direction; and because the least offence of the nobler parts being mortal, their hurt would redound not only to themselves, but also to the rest of the body. Moreover, if the General act the Souldier, who shall act the Captain? how will the Corporal and common Souldier do? They will all think themselves become equal to their superiors, they will no longer do any thing but in their company; and 'twill be no wonder if disorder slides into all the member; when it has begun at the head. If they be blam'd for not knowing how to obey, their excuse will be ready, That they have to do with Leaders who know not how to command. Besides, the General hath the same relation to his Army that the First President hath to a Parliament. Now what would you say if the First President should manage the cause, and undertake to plead it, although the Advocates acquitted themselves ill? Even Domestick Government may serve for a rule in this case; the head of a Family losing his credit among his servants, when he sets himself to do their work. For whereas almost all the affairs of men depend upon opinion, when the respect which arises from the authority of the superior over his inferiors is once shaken, as it is by the too great familiarity which the society of dangers begets, contempt will be apt to jostle out duty. And the common Souldier looks upon his General but as another man when he sees him partake of the same hardships with him. Upon this account were invented the Diadems, Scepters, Crowns, and other ornaments of Sovereigns, and their Magistrates; the meanest of which, instructed by experience, are jealous of their authority, which they keep up by separating themselves from the commerce of the vulgar; but lose it as soon as they receive those for companions over whom they are to command.

The Fourth said, That Reward and Punishment being the  
two



two Supports of all our actions (but especially in War, where there is not time to make all the inductions requisite to a good ratiocination) neither of them can be well administer'd without the presence of the Chieftain, who alone can judge of the merit of his Souldiers, free from all passions, especially, envy and jealousy, which are found amongst equals: for want of which both the one and the other sometimes complain with good reason, the meaner of not being seen, and the great persons of not seeing but by the eyes of others. And therefore the presence of the King hath been always of more value then twenty thousand men.

The Fifth said, That in this, as in all other moral Questions, 'tis impossible to give a definitive judgement, because things of this nature depend not upon certain and infallible causes (as natural things do) but upon free causes, which borrow their commendation or blame from the diversity of the circumstances of things, of time, place, persons, and other accidents; which being infinite, and consequently impossible to be known, have no other rule but that of Prudence assisted by experience. So that it cannot be determin'd absolutely whether the Chieftain of an Army ought to fight or not, but we must distinguish the different occasions which oblige him thereunto, or not. When he understands himself weaker then his enemy, and sees the courage of his Souldiers low, if he cannot avoid giving battel, he must animate his Souldiers by his own example; as also when he is oblig'd by some notable surprisal to lay all at stake; or when he undertakes such great matters, that otherwise he can never accomplish them; as when *Alexander* conquer'd the whole World, his Father *Philip* all Greece, and *Cæsar* the Roman Empire. In every other case, 'tis imprudence, temerity and injustice, in a head of an Army to esteem his own life no more then that of a common Souldier. Yea 'tis greater courage to render himself inflexible in the exact and rigorous maintaining of his orders then to engage himself in fight. In doing which, he notoriously argues his conduct of weakness, since it hath suffer'd things to come to so ill a pass, that he is reduc'd to this extremity of hazarding the loss of his victory, which ordinarily follows the death of the General, and is much more prejudicial to his Army then the example is profitable which he gives to those few that are about him, who are not always induc'd to imitate it. Like those Empiricks who employ extream remedies to common diseases, instead of reserving them only for the desperate.



## CONFERENCE LXII.

I. *Of Time.* II. *Whether 'tis best to overcome by open force, or otherwise.*

EVERY thing that hath existence hath a duration. If this duration hath neither beginning nor end, such as that of God is, 'tis call'd Eternity : if it hath a beginning, but no end, as that of the Heavens, Angels and rational Souls, 'tis call'd by the Latines *Ævum* ; if it hath both beginning and end, as the duration of all material and sublunary things, 'tis call'd Time ; which, although in the mouth of every one, is nevertheless difficult to understand, the Vulgar improperly attributing this name to the Heaven or the Air, saying, 'Tis a fair Time (or Weather) when the Air and Heaven are serene and clear. For although Time be inseparable from Heaven, yet 'tis as different from it as the effect is from its cause : And *Pythagoras* was deceiv'd when he thought that Time was the Celestial Sphere ; as well as *Plato*, who held it to be the conversion of that Sphere ; and *Democritus*, the motion of every thing. Nevertheless, Heaven and Time may be conceiv'd distinctly and a funder, because Time is the duration of the World, the noblest part whereof is Heaven ; and the effects of Time are not known to us but by the motion of the Heavens and the Stars, which make the Seasons, Years, Weeks, Days and Hours, with the difference of day and night.

The Second said, That Time is a pure creature of our Phancy, and hath no real existence in Nature, since it hath no parts. For time pass'd is no more, the future is not yet ; the present is but a moment, which cannot be part of time ; since 'tis common to every part that being taken several times it composes and compleats its total ; which agrees not to a moment, a hundred thousand moments added together making but one moment, and therefore cannot make the least part of time, no more then an infinite number of points can make the least line, because it is not compos'd of points ; as time is not compos'd of moments. For if you say Time is the flux of a moment, as a line is the flux of a point, this argues not the existence of Time, because a point leaves something behind it as it moves, but a moment doth not. Yea, if we believe *Aristotle*, a moment is not in Time. For either 'tis one moment, or many. If one, it will follow that what is done at present, and what a thousand years ago, were done at the same time, because in the same moment. If there be many moments in time, they must succeed one another, one perishing as the next arises, just as of the parts of time, the pass'd perishes to give birth to the future.

But



But a moment cannot perish. For it must perish either in time, or in an instant. Not in time, for this is divisible, but an instant indivisible. Nor yet in an instant. For either that instant would be it self, and so it should be, and not be, together: or it would be the instant before it; which will not hold; because whilst that preceding instant exists, this other is not yet in being; or, lastly, 'twould be the instant after it, and then this instant would be gone before. Wherefore either Time is nothing at all, or else but an imaginary thing. And indeed it seems consentaneously call'd Number and Measure; because neither of these hath other existence then in the mind. For if you say, with some, that time is essential to things, you may as well say that the Ell is of the essence of the cloath which it measures, and number essential to the things numbred; so that, by this reckoning, Measure and Number should be of all sorts of Natures, because they are apply'd to all things.

The Third said, That amongst real things some are momentary, being made and perishing in one and the same instant, which is the measure of their existence; others are perdurable, amongst which as there is something that hath always been, and shall always be; others that have not always been, yet shall always be; so there are some that have not been sometimes, and sometimes shall be no more. Again, of these latter, some have all their parts together; others have them one after another. The first are continuous, and their duration is their age; the second are successive, whose duration is time. For duration follows the existence of every thing as necessarily as existence follows essence. Existence is the term of production. Duration is the term of conservation. So that, to doubt whether there be such a real thing in Nature as Time, is to doubt of the duration and existence of every thing; although the Scripture should not assure us that God made the day and the night, which are parts of time. Moreover, the contrary reasons prove nothing, saving that time is not of the nature of continuous beings, but of successive, which consists in having no parts really present. This Time is defin'd, by the Philosopher. The Number of Motion according to its prior and posterior parts; that is to say, by means of time we know how long the motion lasted, when it begun, and when it ended. For being Number may serve for Measure, and Measure for number, therefore they are both taken for one and the same thing. Indeed, when a thing is mov'd, 'tis over some space, whose first parts answer to the first parts of motion, and the latter parts of the space to the latter parts of the motion, and from this succession of the latter parts of the motion to the former ariseth a duration, which is time, long or short, according to the slowness or quickness of this motion. And because by means of this duration we number and measure that of motions, and of all our actions, therefore it is call'd Number or Measure; although it be onely a Propriety



priety of Time to serve for a Measure, and no ways of its essence.

The Fourth said, That to understand time, 'tis requisite to understand the motion, and two moments, one whereof was at the beginning of that motion, and the other at the end; and then to imagine the middle, or distance between those two extremes, which middle is Time. Therefore man alone being able to make comparison of those two extremes, only he of all animals understands and computes time. Hence they who wake out of a deep and long sleep think it but a small while since they first lay down to rest, because they took no notice of the intermediate motions, and think the moment wherein they fell asleep and that wherein they wak'd, is but one single moment. The same also happens to those who are so intent upon any action or contemplation, that they heed not the duration of motions. Now not only the motions of the body, but those of the mind are measured by time. Therefore, in the dark, he that should perceive no outward motion, not even in his own body, might yet conceive time by the duration of his soul's actions, his thoughts, desires, and other spiritual motion. And as Time is the Measure of Motion, so it is likewise of rest; since the reason of contraries is the same. And, consequently, motion and rest being the causes of all things, time, which is their duration, is also their universal cause.

The Fifth said, That 'tis ordinary to men to attribute the effects whereof they know not the causes, to other known causes, though indeed they be nothing less; so they attribute misfortunes, losses, death, oblivion, and such other things, to Heaven, to Time, or to place, although they cannot be the causes thereof. Hence some certain days have been superstitiously accounted fortunate or unfortunate, as by the Persians the third and sixth of *August*, in regard of the losses which they had suffer'd upon those days; the first of *April* by *Darius* and the Carthaginians, because upon the same day he had lost a Battle to *Alexander*, and these were driven out of *Sicily* by *Timo-leon*, who was always observ'd to have had some good fortune upon his birth day. Moreover, the Genethliacks affirm that the day of Nativity is always discriminated by some remarkable accident: for which they alledge the example of *Charles V.* whose birth day, the 24th of *February*, was made remarkable to him by his election to the Empire, and the taking of *Francis I.* before *Pavia*. Such was also that day afterwards solemniz'd, in which *Philip* of *Macedon* receiv'd his three good tidings. But as there is no hour, much less day, but is signaliz'd by some strange accidents, so there is not any but hath been both fortunate and unfortunate. As was that of *Alexander's* birth, who saw *Diana's* Temple at *Ephesus* burnt by *Herostratus*, and the Persians put wholly to the rout: Yet the same *Alexander*, as likewise *Attalus*, *Pompey*, and many others, dy'd upon the day of



their Nativity; so did *Augustus* upon that of his Inauguration. Wherefore 'tis no less ridiculous to refer all these accidents to Time, then to attribute to it the mutation, oblivion, and death of all things, whereof it is not the cause; although for this purpose *Saturn* was painted with a sickle in his hand, with which he hew'd every thing down, and devour'd his own children. For Time as well as Place being quantities, which are no ways active, they cannot be the causes of any things.

The Sixth said, Time is diversly taken and distinguish'd according to the diversity of Professions. Historians divide it into the four Monarchies, of the *Medes*, the *Persians*, the *Greeks*, and the *Romans*, and the States and Empires which have succeeded them: The Church into Working-days and Festivals: the Lawyers into Terms and Vacations; the Naturalists consider them simply as a property of natural body; Astronomers, as an effect of Heaven; Physicians, as one of the principal circumstances of Diseases, which they divide into most acute, acute, and chronical or long, which exceed 40 days; and each of them into their beginning, augmentation, state and declination, as distinguish'd by the common, indicatory and critical days.

II.  
Whether 'tis  
best to over-  
come by open  
force or other-  
wise.

Upon the second Point it was said, That Force being that which first caus'd obedience and admiration in the world, the strongest having ever over-mastered others; it cannot enter into comparison with a thing that passes for a Vice, and even amongst Women, as sleight and subtlety doth; and crafts in any action otherwise glorious, greatly diminisheth its lustre. So *Hercules* is more esteem'd for having slain the *Nemæan Lion* with his club, then *Lyfimachus* for having taken away the life of another by dextrously thrusting his hand wrap'd up in a piece of cloth into his open'd throat, and so strangling him; of which no other reason can be given, but that the former kil'd him by his cunning, and the other by plain strength. Moreover, General things are made of Particular; duels and single fights, are little pictures of battles. Now every one knows what difference there is between him that overcomes his Enemy without any foul play, and another that makes use of some invention or artifice to get advantage of him. For though Duels are justly odious to all good men, yet he that hath behav'd himself gallantly therein, even when he is overcome gains more Honour then he that by some fraud hath gotten the life of his Enemy. Indeed, the word *Virtue* coming from the Latine which, signifies *Man*, implies that to be virtuous, 'tis requir'd to overcome as a Man, and leave tricks, sleights, and subtleties to Women, to supply their weakness; and yet Women too, when they see the masculine vigorous deportment, and feats of Arms of a Cavalier, that has won the victory over his Enemy, will prefer him before an other who hath had the same advantage without striking a blow. Whence it appears,

that



that in all sort of Minds, Generosity and Courage finds more favour than subtlety.

The Second said, That the Emblem of the Wind and the Sun, trying which should make the Traveller quit his Cloak, (attributing the mastery to the Sun above the Wind) shews that Force is not alwayes the most efficacious. For he who aims to overcome must accomplish it by the most facile way; which being ordinarily the gentlest, because it finds least resistance, brings about its designs more easily then violence, which giving the Alarm makes every one stand upon his guard, and renders all enterprizes dangerous. Therefore the wise General who commits his affairs to Chance as little as he can, assayes all other means before he comes to open force; imitating a discreet Master of a Family, who never falls to blows either in his house, or out of it, so long as he hath any hope from wayes of gentleness. Moreover, the means which peculiarly belong to Man ought to be prefer'd before those which are common to him with brutes; yea, in which they go beyond him. And you see that they are not the most strong and robust that command in Monarchies and States, but the most wise and prudent, whose bodies are commonly more weak through their great watchings and toils; and because these delicate bodies are more easie to be govern'd by the powers of the Soul, which consequently are more worthily exercis'd therein.

The Third said, That *Philip* of *Macedon* had reason to compare subtlety to the Foxes skin, as force to the Lion's, saying, that the former was to be made use of when the latter hapened to be too short. For he who employes subtlety in war, thereby acknowledges his weaknesse which made an old Captain say, when he was advis'd to set upon his Enemy in the night, That he would win, not steal a Victory. For he that is vanquish'd onely by stratagem does not acknowledge himself worsted; and they who make use of wiles, when they think they have done, they are alwayes to begin again; as the Barretors who by some subtlety have procur'd a Verdict are never secure against new Sutes. So a little man, skill'd in wrastring, may haply trip up his more sturdy Antagonist, and so be counted more dextrous or nimble, but not more strong then he. Moreover, since all actions take their rule from Justice, which cannot consist with fraud, he is not to be reputed a Conqueror that hath gotten a Victory unjustly.

The Fourth said, That if we receive the judgement of the vanquish'd, the Victors are alwayes faulty. Therefore it matters not by what means we defeat our Enemies, provided those means be lawful, and transgress not the maxime of Divines; That evil is not to be done to the end good may come of it. This premiz'd, 'tis not onely lawfull for the chief of an Army, but perfectly his duty to deprive his Enemies of all advantages before the fight, in it, and afterward besieging



places, defending them, or giving them relief. So *Joshua*, to encourage the Israelites to make an invasion into the land of *Canaan*, caus'd Grapes of prodigious greatness which grew in that Country to be shew'd them in the Desert. *Cato*, to animate the *Romans* to the Carthaginian War, let fall in the Senate some of the large *African* Figs, crying, that there were but three days sail from the place where they grew. An other, by letting loose a Hare from the walls of *Thebes*, thereby assur'd his Soldiers that they had to do onely with cowards, since they suffer'd those Animals to come amongst them. *M. Antonius*, to exasperate the *Romans* against the murtherers of *Cæsar*, display'd his shirt to them all bloody. And *Augustus*, to convince them of ingratitude, publish'd his Testament, true or fictitious; whereby he made those very murtherers his heirs. Others, of whom Examples are infinite, by continual Alarms oblige their Enemies to watch and stand for some dayes in armes before the fight, to the end to tire them out by those toiles; they weaken them by delights, cut off their provisions, hinder their relief, raise false reports, and intercept Letters on purpose to abate their Courage, or that of their Allies. In the fight, they strive to give their Enemies the disadvantage of the wind, dust, smoak, and Sun in their faces; they possess the highest and most advantagious places, and drive them upon precipices, ditches, bogs, and other incommodious places; they let loose mad beasts upon them, as Elephants of old, to break their ranks, and strike terror into them; which others do also by their cries, words, armes, engines, and other uncouth inventions, the strangeness whereof making a great impression in their Minds, puts them into disorder. They make shew of assailing them on one side, whilst on the other, where they are weakest, they give an assault in good earnest. Some have overcome them by their celerity, surprizing them asleep, feasting, playing, or wearied; others, by a contrary stratagem, get the better of them by patience, undermining and consuming them by little and little. After the fight, when the Enemies are defeated, they hinder them from getting together again in a body. In brief, all the sleight and artifice that humane invention can imagine, to confound the counsels, and dissipate the forces of the Enemy, hath been in all times employ'd to that end; and they who have best practis'd the same, have gotten the name of great Captains. Therefore *Virgil* had reason to say, That it was not to be consider'd, whether fraud or force were to be us'd against an Enemy; but to conclude, both are succesfully joyn'd together.



## CONFERENCE LXIII.

## I. Of Motion. II. Of Custome.

**M**Otion is consider'd variously in the Sciences. By Meta-  
 phyficks, inasmuch as Entity is divided into Moveable and  
 Immoveable. By Natural Philosophy, as 'tis an internal pro-  
 priety of a Natural Body. By Logick, so far as 'tis inseparable  
 from Contrariety, whereof it treats amongst the Opposites. By  
 Physick, as being comprehended amongst the six things not-na-  
 tural. By Astronomy, as it is annex'd to the Heavens, and by  
 them is the cause of all those here below. By the Mechanicks,  
 as 'tis the Agent of all their Engines. And 'twere to be wish'd  
 for the perfection of the Mathematicks, that as some of them  
 treat of continuous Quantity permanent ; ( as Geometry )  
 others, of discrete Quantity, ( as Arithmetick ) considering them  
 abstracted from their matter ; so there were some that treated  
 purely of the nature and properties of continuous Quantity suc-  
 cessive, which is Motion. For the doctrine of Motion is so ex-  
 cellent, that by its help Philosophers guided onely by the light  
 of Nature have come to the knowledge of one Eternal God  
 alone, and of the dependance that all beings have upon one sole  
 cause ; because every thing that is mov'd is mov'd by something  
 else ; otherwise, if it mov'd it self, it should make it self perfect ;  
 since every thing that moves gives perfection, and that which is  
 mov'd receives the same. Now this cannot be, because then one  
 and the same thing should at the same time be both Agent and  
 Patient, have and not have perfection, be and not be ; which  
 is the greatest absurdity. Wherefore what ever is mov'd, 'tis  
 mov'd by some other thing, and this by some other, till you  
 come to a First Mover, who gives Motion to all things. For  
 otherwise there would be a progress into infinity, which cannot  
 be admitted into causes. Likewise, that all things depend upon  
 a Supreme Cause is prov'd by Motion ; because every thing that  
 is mov'd depends upon that which moves it : Whereupon the  
 Naturalists say, that it is united thereunto by a Contact either  
 of the *Suppositum*, or of Virtue ; and therefore all things being  
 mov'd by that First Cause, depend wholly upon it, and are  
 united to it. But as excellent things are most difficult, and com-  
 monly the clearest are assaulted by the strongest objections ; so  
 there have been some persons that have deny'd Motion, as *Parme-  
 nides* and *Zeno*, ( although it hath as true existence as Nature  
 which is the principle of it ) because they could not answer the  
 objections brought against it. Others, on the contrary, as *Hera-  
 clitus*, have conceiv'd that all things are in continual Motion,  
 although the same be never perceiv'd by our Senses. But *Ari-  
 stotle*, according to his wont, chusing the middle opinion, hath  
 affirm'd,

I.  
Of Motion.



affirm'd, That there are some things which alwayes move; others, that alwayes rest, and others that move and rest alternately. That which alwayes rests is the First Mover; That which alwayes moves, is the Heavens, whose never interrupted circular Motion comes very near infinity. Things which move and rest at times, are all other simple or compound bodies, in which the Motion is either natural, as in fire to mount upwards; or in violent, as in the same fire to descend downwards. Both which kinds of Motion admit of rest too; the natural, when the body hath found its centre; the violent, at the point of reflection, or when the virtue impress'd upon it by the Agent ceases.

The Second said, The incessant mutation made in all things, argues that there is no Rest; since Rest is the abiding of things in one and the same state, and nothing doth so. Nor is there any Motion, because if there were, it should be made in an Instant. But Nothing is chang'd in an Instant, being all Mutation presupposes two termes; one, *From which*, and another, *To which*; and there are no termes without a middle, or *medium*; nor can any thing pass from one terme to another through a *medium*, but in time. That Motion must be made in an Instant, appears, because there is nothing between the last point of that which is to be chang'd, and the first of that which is chang'd. For in Local Motion, a stone begins to be mov'd at the same instant wherein it ceases to rest. There is therefore no intermediate space between its motion and its rest: And if two extremes which have no *medium* between them be together, then things which are together are in one and the same moment. This is yet further manifest in the other kinds of Motion. For in Generation there is nothing between Not-Being; and Being, and in Corruption nothing between Being and Not-Being. Otherwise, there should be something that exists and exists not; which is contrary to the first principle. In Alteration, as soon as the Air is illuminated the Darknes ceaseth, and there is nothing between them. In Accretion or Augmentation, the Body is still in its first quantity till it receive a greater; as likewise in Diminution 'tis alwayes in the same magnitude, till it be reduc'd to a less. For we must beware of taking the dispositions or preparations to all these motions for the motions themselves.

The Third said, 'Tis easier to say what Motion is not, then what it is; since the Philosopher tells us, that it hath more of Non-entity then of Entity. Wherefore being things cannot be known but so far as they are true, and they are not true but so far as they have Being, 'tis no wonder if Motion be one of the difficultest to be understood; and 'tis the more so, because we must not confound with the other things that accompany it, which are the Agent and Patient, their action and passion, its two termes, the extent of place, time, and the subject wherein it is caus'd. Besides, every thing that is known, being so either by  
it



it self when it is real, or by some other when it is not such ; Motion which partly is, and partly is not, can neither be known by it self, nor by some thing else ; for it cannot be known by the Senses, nor, without their help, by the Intellect ; there being in Motion a something *before*, and something *after* ; and consequently, a correspondence which falls not within cognizance of the Senses. Therefore, to supply this defect, the Philosophers have describ'd Motion, (of it self insensible) by things that fall under sense, saying, that it is That which is included between the term *From which*, and the term *To which* ; as the Physicians render the motions of life sensible by Dentition, Puberty, Stature, different colours of the Hair ; in short, by the vigor and inclination of actions, and by such other sensible signes which notifie the diversity of Ages : And the Astrologers, those of the Sun, and other Stars, by the houses of the Zodiack, their Oppositions and different Aspects ; as also by the dispositions of the Air which make the diversity of our seasons ; like those Travellers which distinguish the number of miles by Cities, Villages, Crosses, and other visible signes. Motion is therefore the passage from one term to the other. And so, not onely when my hand slides from one side of this paper to the other, but also when of hot it becomes cold, there is made a Motion.

Upon the Second Point it was said, That *Right* is divided into written and not written ; the former is the Laws, the second is Custom, which is of Right us'd of long time, establish'd by little by the liking of every one, and approv'd by the tacite consent of the whole people ; and therefore more grateful then Law, which never equally pleases all ; and is oftentimes fort'd in an instant : But Custom, taking root by time, is not establish'd, except after long experiences. 'Tis of account among Physicians, that *Hippocrates* commands that regard be had to it as well to the age, the disease, the country, and the season ; yea, he saith, that all things accustomed, (although bad) are yet less hurtful then those which are unusual, although better in themselves. Amongst Lawyers nothing is so powerful as Custom, which makes us patiently endure things contrary to the equity and nature it self ; such is the exclusion of the younger Children from a share of the inheritance, which amongst the Gentry of most Nations descends to the eldest. The variety of Custom makes some Nations prefer a supercilious gravity ; others, familiarity and courtesie : Some are commendable for sobriety, others are notorious for drunkenness. Some people, as the *Albanians*, accounted it impious to speak of the dead ; and amongst us, 'tis impiety not to think of them. Amongst the first, *Egyptians*, women went to the Tavern, and men spun at home ; as amongst the *Amazons*, the women alone were Souldiers. The *Lacedemonians* permitted Theft, provided it were committed dextrously. The *Arrians*, on the contrary, ston'd the most petty Thieves. Amongst

II.  
Of Custom.

the



the Babylonian Ladies she was held the most vertuous who prostituted her honour to most people, whereas nothing is so tenderly regarded among all other Nations. In brief, we are civil or uncivil, good or bad, foolish or wise, or any thing else, according to custom, which *Erasmus* calls the Monosyllable Tyrant, because 'tis term'd *Mos* in Latine; a Tyrant, to whom he is so distastful that doth not dress himself, make his reverences, and do every thing to obey it, that he passes for a fool in all the rest of his actions.

The Second said, Custom bears such a sway over all the actions of men, that it renders all things familiar to them. The Understanding commonly embraces the falsehoods which it first imbib'd, and rejects the truth (its proper object) whereunto it is not accustomed. The cause of which is, for that what the Intellect apprehends it so familiarizes to it self as to become conformable thereunto, and by the pattern thereof judges of all the rest thenceforward; yea of it self, which being become like to the thing apprehended cannot approve the contrary; every thing being pleas'd with its like. The Will, although free in all its actions, yet undergoes some sort of constraint, when it finds it self more inclin'd to persons of acquaintance then to unknown, though more accomplish'd. Moreover, we love rather by custom then by reason. Hence Mothers more tenderly affect their Children with whom they commonly converse more, then Fathers do; and Nurses more then some Mothers. As the Memory decays through want of being exercis'd, so experience shews us that the most certain Art of it is to cultivate it. Custom hath such a power over the Imagination, that those who think frequently of any thing, dream of it likewise when they are asleep. Amongst the outward Senses, is not the Sight dazled when we come out of the dark into a bright place? as, on the other side, we see not a jot when we go out of the Sun into a very shady place; yet our eyes perform their office, being accusom'd to both. Those who live neer the Cataracts of *Nile*, the Artificers whose noise displeases us so much, and who dwell in Mills and Forges, are not disgusted with those clatters, and rest as sweetly without silence as others do with it. Neatherds, accustomed to breathe in Stables, swoon at the smell of perfumes. The mischief arising to Infants by changing their milk as well as the manner of living to all ages, and the diversity of tolerating pains according as people are hardned to them, or not, justifie the power of custom over all our Senses. So that it is justly stil'd the Mistress of Man, stronger then Nature, which it alters and destroys, and is so powerful that it cannot be destroy'd but by it self.

The Third said, That Custom is less strong then Nature, being difficult to change only because 'tis some-ways like Nature. Hence 'tis easier to reclaim one that is vicious by custom then by nature; for this custom being a habit, the same actions which  
gave



gave it being by their frequent repetition, destroy it likewise by their interruption. But Nature being radicated within us may indeed be encounter'd, but always holds out; yea, according to the Proverb, it returns although you drive it away with a fork. The melancholy person cannot so well play the Greek, and be jovial in company, as not to discover some token of that sad humour, amidst his greatest rejoycing. On the contrary, you will see sanguine humours which cannot counterfeit sadness even in matters that require it most. The cholerick sometimes governs his passion well by reason; but he can never suppress the first motions of it, because they are not in our power; and therefore Philosophy rather masks, then amends nature. In fine, the Phlegmatick always appears slow and stupid in his most violent motions; on the contrary, custom is easily alter'd by a good resolution; as we see in abundance of holy and penitent souls, who forsaking the world, in an instant divest themselves of all their evil habits, and put on those of piety. And *Socrates* could by the precepts of Philosophy change his evil habits, not his natural inclinations, but that there appear'd sufficient tokens thereof in his countenance, to justify the judgement of *Zopyrus* the Physiognomer.

The Fourth said, We are beholden to custom, that every one abides in his own condition. 'Tis that which makes Seamen prefer the tempests at sea before rest at land, and the laborer despise the treasures of the East, for his cart. It made *Cæsar* go bare-headed, although bald, in all the ardours of *Africk*, and the coldest climates of the North. It arms the beggar to encounter with hunger, cold, and the other inconveniences of the air. 'Tis from hence that we see slaves sell their liberty after they have receiv'd it from their Masters; they are so accustom'd to live in chains. 'Tis this and not nature which lays shame upon the parts most necessary for conservation of the species: witness the punishment of some Indians upon such as have abus'd them; for they condemn them to cover them, whereas others wholly discover them; and these criminals account not themselves less punish'd hereby then those that here are pillory'd or carted; which also is not ignominious amongst us but by custom. It likewise exercises dominion over ceremonies and civilities, most whereof are so contrary to health and seemliness. It keeps the Mint where honour is coin'd; and that which is not register'd there passes for error and clownishness. 'Tis this which causes men to kiss one another when they salute, whereas thirty years ago they retir'd backward with many reverences which denoted respect; yea it bears such an absolute rule over mens minds, that as the Greeks and Romans stil'd all *Barbarians* who follow'd not their laws and fashions, all the world now do's the like still, judging ancient or forreign modes and usages ridiculous. We blame the manners of the *Æthiopians* and *Chineses* as they do ours; the visages of



the people which most frighten us are best lik'd by them ; and we phancy deformity with the same lineaments and colours wherewith they paint beauty. Those Americans who kill their old decrepit Parents, instead of believing themselves parricides, call us cruel for letting ours continue so long in the miseries of age. Infinite like instances have caus'd some to say, that 'tis another nature : but I hold it stronger then nature, since by it *Mithridates* render'd poyson innoxious to himself, and some whole Nations of *India* live upon Toads, Lizards and Spiders. Yea it hath made death as lovely and desireable as life amongst great Nations ; whereas Philosophy with all its pompous discourses hath labour'd much to render the same indifferent to a few persons. 'Tis call'd by *Pindar* the Emperess of the world, and caus'd *Seneca* to say, that we govern not our selves by reason but by custom, accounting that most honest which is most practis'd ; and error serves us for a law when it is become publick. Lastly, 'tis stronger then the laws themselves, since it gives them all the power and authority which they have.

The Fifth said, That Vertue it self is nothing but a custom. For we have it not by nature, as *Plato* holds in his *Menander*, because of those things which we have by nature, the faculties are found in us before the actions. So the power of seeing, hearing, and speaking, is in man before these acts ; but we perform vertuous actions before we have the habit of vertue. Moreover, these vertues are for this reason call'd moral ; because they are implanted by custom ; and as an Architect learns his Art by frequent building, so by constant performance of acts of justice or courage men become just or courageous. Therefore the true way to become virtuous is to be accustom'd to vertue from one's infancy ; and hence Fathers are so careful to have their children well instructed, and to give them good examples. For being nothing but difficulty keeps men off from the practice of virtue ; if this difficulty were remov'd by custom, which makes the hardest things easie, vertue which seems so knotty would be delightful, and pass into nature. And 'tis a token of perfect vertue when men take pleasure in exercising it.

#### CONFERENCE LXIV.

I. *Of the Imagination.* II. *Which is most powerful, Hope or Fear.*

I.  
Of the Imagination.

BECAUSE the knowledge of the present suffic'd not for the preservation of animals, but requir'd also that of the past and the future ; therefore Nature hath made provision for the same, giving



giving them not only five *Outward Senses* whereby they know their objects present (for every sensation is a sort of knowledge) but likewise a *Common Sense* to *Distinguish* those objects, an *Imagination* to represent the same to it when they are absent, and a *Memory* to preserve the Species. Now as, amongst the external Senses, those are exercis'd most perfectly whose organs are best dispos'd; so, amongst the internal, those are most vigorous which are found in a brain best temper'd for their action. If its constitution be humid, then the Common Sense acts most perfectly; if dry, the Memory is most tenacious; if hot, the Phancy or Imagination is strongest. But if the temper of the same Brain be cold and dry, then Prudence reigns in it, as we see in old men, and melancholy persons. For 'tis more reasonable to say, that the Organ of these faculties is the whole Brain than any one part of it. And what is brought for proof of the contrary; that oftentimes one of the faculties is hurt while the rest are entire (some having a sound Memory when their Imagination is deprav'd) argues not that they have different seats; but as the natural faculty in the whole Liver sometimes attracts but cannot retain, retains but cannot digest or separate excrements; so the animal faculty equally dispers'd through the whole substance of the Brain, sometimes judges well of the difference of objects, acknowledges conveniences and inconveniences, receives the true species, but yet cannot retain them; on the contrary, the Memory will be sometimes entire although the Imagination be disorder'd, because the constitution which is then found in the whole Brain is fit for the exercise of one of those functions, not of the other. Moreover, it happens not unusually that those faculties are wounded, although the Ventricles assign'd for their residence be not; as in the head-ach, or distemper of the Brain, and in Phrensies caus'd only by inflammation of the Meninges without any læsion of the Ventricles.

The Second said, That the Imagination is not distinct from the other faculties; but our soul resembles the Sun, which in the continuity of the same action hath different effects, not acting in the diaphanous parts of Heaven, refrigerating the middle region of the air, heating the lower, and again herein corrupting some bodies, producing and giving life to others: The conservation of the species and their reception not being two different actions; but rather as the wax by one and the same action receives a figure and retains it, so the Imagination which receives the species of objects must not be distinguish'd from it self when it preserves and retains them, unless *by reason* or *mental discrimination*, whereby we call Memory it self an action, although it be but the continuation and preservation of the first.

The Third said, The effects of the Imagination are so marvellous, that most of those are ascrib'd to it whereof we can find no other reason. As, the likeness of Children to their Fathers,



although they be only putatives; because the apprehension of disloyal Wives of being surpriz'd by their Husbands makes them conceive them always present: the production of most Monsters, the marks imprinted upon the Child in the Womb, and the like. But that it is the Mistress of Reason and the Will, deserves most admiration. For the Soul imagining no danger, or proposing to it self a good greater then the mischief of the danger, carries the body upon the ridges of houses, upon ropes and breaches, even upon the mouths of Canons; makes some swim cross rivers asleep, who destroy and drown themselves, and are frighted where they have least cause; namely, when they awake or find themselves alone in the dark, so soon as their Phancy proposes some terrible object to them, how absurd soever it be. Wherefore they who desire to encourage Souldiers heat their Brains with Wine, which keeps their imagination from representing the danger to them: or raise some extraordinary boldness in them by generous discourses, whose new impressions drive their bodies upon dangers. Hence the Turks disorder the imagination of their Souldiers by *Opium*, the effect whereof in the quantity wherein they take it is contrary to that whereby it casts sick persons into a sleep in this climate. Reason never acquiesces in the propositions which our Imagination hath not apprehended as true; and therefore weak minds are less capable of relinquishing an error wherewith they have been imbu'd. Offences are not such, but so far as our phancy conceives them such. For a great hurt which we have receiv'd, if an excuse follow it, offends us not; whereas an indifferent word, a coldness, a gesture which we interpret for a scorn, even a privation of action, as neglect of a salutation, makes men go to the field. Yea all the professions of the world borrow their praise or their blame from Phancy. And who is there amongst us but would account it a grievance, and make great complaints, if that were impos'd upon him by command which his phancy makes him extreamly approve. The studious person rises in the night, to study; the amorous spends it in giving serenades; In brief, the Proverb, that saith, None are happy or unhappy but they who think themselves so, abundantly evidences the power of Imagination.

The Fourth said, All Animals that have outward senses have also Imagination; which is a faculty of the sensitive soul enabling them to discriminate things agreeable from the contrary: Therefore those Philosophers who deny'd this power to Worms, Flyes, and other insects, which they affirm'd to be carried towards their good by chance, and not by any knowledge of it, besides their derogating from divine providence, were ignorant that the smallest animals cease not to have the same faculties as others, at least, confused, as their Organs are, which contain the more marvels in that they serve to more several uses. Moreover, Experience shews us, that they well distinguish what is fit  
for



for them from what is not ; yea they have their passions too ; for choler leads the Bee to pursue the enemy that hath pillag'd its hive ; their providence, or fore-cast, since both that and the Pismire lay in their provisions, and observe a kind of policy among them, the former acknowledging a King ; which they could not do without the help of Imagination, although the same be not so strong in them as in perfect animals : among whom even such as have no eyes, or want the use of them, as the Mole, are much inferior to others in Imagination, which is chiefly employ'd about the Images (whence it takes its name) whereof the sight supplies a greater quantity than all the other Senses. So that every animal, being naturally lead to its own good, needs an Imagination to conceive it such ; but all have not Memory, which being given only to enable animals to find their abode again which they are oblig'd to quit for some time in quest of food ; those who change not their residence, as Oysters, or which carry it with them, as Snails and Tortoises, have no need of it.

The Fifth said, That the Imagination is a cognition different from that of sense ; for it knows that which *is* not, but the Sense doth not ; from Science and Intelligence, because these are always true, but that is sometimes true, sometimes false. Nevertheless, 'tis not opinion ; because opinion produces a belief in us, which presupposes perswasion, and this is an effect of Reason whereof brutes are not possesst, although all of them have, more or less, some Imagination. Its object is of so great latitude that it goes beyond that of entity ; since that which *is* not as well as that which *is*, the false as well as the true, are under its jurisdiction ; for it composes, divides and runs over, all nature, and what is out of nature ; herein almost like the Intellect, which owes all its highest notions to it, since it can know nothing without the phantasmes of the Imagination, which, on the contrary, depends not any ways upon the Understanding in its operations.

The Sixth said, The Imagination, although very active, and carri'd in a moment from the lowest stage of the world to its highest stories, and to those spaces which it phantasies above the heavens, yet cannot comprehend where it self is lodg'd. But the quality of the Brain most proper for it, is heat. For besides its great activity, whereby it is necessarily alli'd to fire, the phantifull persons are most subject to burning Fevers, the cholerick excel in this faculty ; of which, on the contrary, the phlegmatick are worst provided. Whence, perhaps, Poets, who owe their best Verses to the Phancy, heighten the heat of their Brain by drinking the best liquors. Moreover, 'tis the strongest of all the Souls Faculties, and involves every thing here below. It disorders and quiets Nations, making them undertake wars and desire peace ; it awakens and stills our passions ; and as if nature were not powerful enough to produce all things necessary



fary to the perfection of the world, it daily frames new ideas, and makes other worlds to its curiosity. 'Tis this that blinded him of whom *Pliny* speaks, who having dream'd in the night that he had lost his sight, found himself blind when he wak'd; 'tis this that gave a voice to *Cræsus's* son which nature had deny'd him; which chang'd *L. Cossutius* from a woman into a man; which made horns grow out of the forehead of *Cippus* after his dreaming of the Oxen whom he had seen fighting all the day before. In brief, 'tis this that made *Gallus Vibius* become foolish, by having mus'd too much upon the causes of folly. But it acts not only within both upon the body and the soul; it diffuses its power beyond its own mansion. For to it is attributed that wonder of the Tortoises and Estriches which hatch their egges by the sight; as also that of Hens, which breed Chickens according to the colours laid neer their Nests, and sometimes of the shape of a Kite if they have been frighted by that bird whilst they were hatching. 'Tis also to the power of Imagination that what my Lord *Bacon* affirms is to be referr'd, namely, That it is dangerous to be beheld by our enviers in extream joy, as 'tis reported that certain Scythian women murder'd only with a single aspect; and possibly to this cause better then to any other the bleeding of a murder'd body in the murderer's presence may be imputed, as also that the most vigorous have been found cold and impotent; and other effects, the cause whereof may be better referr'd to this Imagination, and the connexion and coherence of this cause with those effects demonstrated.

II.  
Which is  
most power-  
ful Hope or  
Fear.

Upon the second Point, it was said, That fear being of two sorts, one filial, mix'd with respect proper to the ingenuous; the other servile, arising only from the consideration of punishment; it appears hence that fear is more effectual then hope; which is not often found but in good persons, whereas fear is found both in the wicked and the good. The Laws seem also to decide this question, there being none that encourages virtue to hope for any thing, but all infuse an abhorrence of crimes by the fear of punishments. Moreover, both the *Indies* would not suffice the least Commonwealth, if profitable rewards were to be given to every good action perform'd in it; and honorable recompences being valu'd only for their rarity, would be no longer so if they came to be common. Therefore there is but one Treasurer of the Exchequer in office, but Judges, Counsellors, Archers and Serjeants innumerable. Moreover, there is always more to be fear'd then hop'd. For he who hath an estate and honour may more easily lose them by the underminings of the wicked and envious, who are the greatest number, then obtain new by performing as much good as he will; either because they who are able to reward him are not always well inform'd thereof, or because they want both the means



means, and the will to do it. Therefore although God would have us hope for Paradise, yet he requires that we serve him in fear, and draw neer to him with trembling. So that the thing we most hope for (eternal life) mixing our hope with fear, 'tis not credible that any other thing is exempt from it: Yet there are some fears without any hope. Now the passion which acts powerfully alone is stronger then that which acts onely in the company of another.

The Second said, That if the greatness of causes is to be judg'd by that of their effects, that Passion must be strongest which leads us to the greatest attempts. And so Hope will carry it above Fear, since 'tis that which makes a Souldier run up a breach, and which hath induc'd so many illustrious men, both ancient and modern, to generous actions; whereas, Fear by its coldness chilling the spirits, and penning them within, renders them incapable of any action. For all our actions depending on the dispositions of the spirits, the instruments of all motions both Internal and External; if these spirits be heated, active and nimble, as they are render'd by Hope, then the Mind is boldly carry'd to the most difficult actions. On the contrary, if they be cool'd and fix'd by Fear, then the soul finding her self enfeebled, can do nothing but what is mean and pusillanimous.

The Third said, To examine the power of Hope and Fear aright, we must look upon them as two Champions, who are to encounter. But Fear already shews by the paleness of its Countenance, that it wants Heart, and yields to Hope, which animates it self to the pursuite of the good it aims at, by driving away all sort of Fear, which would cause apprehension of obstacles and crosses, opposing the enjoyment of that good. Moreover, Fear is contemptible, and not found but in abject spirits; whereas Hope resides in sublime souls, where it produces actions worthy of its grandeur and original, which is Heaven; towards which men naturally lift their eyes in their adversities; as Fear derives its original from below, towards which it depresses the bodies and minds of those whom it possesses: So that to compare Hope with Fear, is to put Heaven in parallel with Earth.

The Fourth said, That both these Passions belong to the Irascible Appetite, both of them look to the future, and are employ'd to surmount the difficulties which are presented to the Concupiscible Appetite. Hope is the *expectation of a good hard to be obtain'd, yet apprehended possible*. It is found most frequently in young men, because they live onely upon the future; and 'tis the Anchor of all unfortunate persons, none of which are out of Hope of being deliver'd from their miseries. 'Tis Physick to all our evils, never abandoning the most desperately sick so long as they breathe; Yea, 'tis the refuge of all man-kind of what sex, age, or condition soever; herein the more miserable, in that being destitute of real good, there remains no more for them but imaginary and phantastick. Hence the *Hebrems* denote Hope  
and



and Folly by the same word, *Chesel*. The truth is, as if the evils that oppress us were not numerous enough, our souls frame and phancy infinite more through Fear; which dreads as well that which is not, as that which is; being properly the *Expectation* of an *approaching evil which gives horreur to our senses, and cannot easily be avoided*. For men fear not the greatest evils, but those which are most contrary to their nature. Whence it is that they more apprehend the halter, the gallies, or infamy, then falling into vices, or losing the Grace of God. For although these be the greatest evils of the world, yet men do not acknowledge them such, but by a reflection of the Understanding. Hence also the wicked fear the wheel more then Hell; because Gods punishments of sin are accounted slow, and those of men speedy. But to judge of the strength of Hope, and Fear, by their proper essence, we must consider that Good being much less delightful to Nature then Evil is painful and sensible, (because Good onely gives a better being, Evil absolutely destroyes being) Fear, which is the expectation of this Evil, is much more powerful then Hope, which is the expectation of that Good. Which appears further by its effects, far more violent then those of Hope; for it makes the Hair stand an end, and hath sometimes turn'd it white in one night; it makes the Countenance pale, the whole body quake and tremble, the Heart beat; and not onely alters the whole habit of it, but perverts Reason, abolishes Reason and Memory, intercepts the use of Speech, and of all the Senses; so that it hath caus'd sudden death to divers persons. But Hope never gave life to any. Fear adds wings wherewith to avoid an Evil; Hope barely excites to move towards Good. In a word, Fear needs sometimes the whole strength of all the Virtues to repress its violence, and check its disorders.

## CONFERENCE LXV.

I. *Of the Intellect.* II. *Whether the Husband and Wife should be of the same humour.*

I.  
*Of the In-*  
*tellect.*

THE Intellect is a Faculty of the Soul, whereby we understand. For of the Faculties, some are without knowledge, as the natural, common to man and inanimate bodies, and the vegetative, which he hath in common with plants, namely, the powers of Nutrition, Accretion, and Generation; others are with the knowledge. And these (again) are either exercis'd without the use of Reason, as the Internal and External Senses; or else stand in need of Reason, as the Intellect, and the Rational Appetite, which is the Will; the former, to distinguish true from false; the latter, good from evil. Now as the Understanding acquires its



its notions from the inferior powers, so it imitates their manner of perception; and as sensible perception is passion, so is intellectual; and the intelligible species are receiv'd in the Intellect, after the same manner that the sensible are in the organs of the outward senses. For as their organs must be free from all the qualities whereof they are to judge; so must the Understanding which is to judge of every thing, be from all intelligible species; yea, more then the organs of the Senses. For the Crystalline humour of the Eye hath tangible qualities, the hand visible, because the former is not destinated to touch withall, nor the latter to see. But the Intellect being to understand every thing, because every thing is intelligible, must be wholly clear of all Anticipations; contrary to *Plato's* opinion, who admitting a Transmigration of souls, conceiv'd that entring into other bodies, they carryed with them the species of things which they had known before, but darkn'd and veil'd with the clouds and humidities of the bodies which recloth'd them; and these being dissipated by age, the species put forth themselves by little and little, as Characters engraven on wood or stone, cover'd over with wax, appear proportionably as it melts off. And therefore he term'd all our knowledge a remembrance; but although he err'd herein, yet reason'd better then *Aristotle*, who admitted the Metempsychosis, but deny'd the Reminiscence, both which are necessary consequents one of the other.

The Second said, That the operations of the Intellect are so divine that not being able to believe the same could proceed from it self, it refers them to superiors. For it invents, disposes, meditates, examines, and considers the least differences; it compounds and divides every thing, apprehends simple termes, conjoynes the subject and the attribute, affirms, denies, suspends its judgements, and alone of all the Faculties reflects upon it self; yea, by an action wholly divine produces a word. For as in speaking a word is produc'd by the mouth, so in understanding is form'd the word of the Mind. Yet with this difference, that the former is a corporeal patible quality imprint-ed in the Air, and not the latter; for intellection is an immanent operation. Hence some have thought that all these divine actions were perform'd by God himself, whom they affirm'd to be that Agent Intellect, which irradiating the phantasmes, produces out of them the intelligible species which it presents to our Intellect. Others ascrib'd them to an Assisting Intelligence. Some to a particular *genius*. But as I deny not, that in supernatural cognitions God gives Faith, Hope, and Charity, and other supernatural gifts; in which case God may be said to be an Agent Intellect: I conceive also, that in natural and ordinary knowledge, of which alone we speak now, no concurrence of God, other then universal, is to be imagin'd, whereby he preserves natural causes in their being, and do's not desert them in their actions. 'This then the Understanding it self which per-



formes what ever it thinks, surpasses its strength which it knows not sufficiently; and the Agent and Patient Intellect are but one, being distinguish'd onely by reason. As it formes that species, 'tis call'd Agent; as it keeps and preserves them, Patient. For as the Light causes colours to be actually visible by illuminating them together with the Air, with their *medium*, so the Agent Intellect renders all things capable of being known, by illustrating the phantasmes, separating them from the grossness of the matter, whereof they have some what when they are in the Imagination; and forming intelligible species of them. Otherwise, if these phantasmes remain'd still in their materiality, the Understanding being spiritual could know nothing; since that which is sensible and material, remaining such, cannot act upon what is spiritual and immaterial. Besides, the species of the Phancy representing to us onely the accidents of things, it was requisite that the Intellect, by its active virtue subliming and elevating those species to a more noble degree of being, should make them representative species of their own essence. Which it doth by abstraction of the individual properties of their subject from which it formes universal conceptions; which action is proper to the Intellect. This supreme Faculty being so noble that it ennobles all beings, rendering them like to it self.

The Third said, That the Intellect is to the Soul such as the Soul is to the body which it perfectionates. And as it knows all corporeal things by the senses, so it knows incorporeal by it self. This Faculty serves for a *medium* and link, uniting all things to their first cause; and 'tis *Homer's* golden chain, or *Jacob's* ladder which reaches from Earth to Heaven, by which the Angels, that is, the species and most spiritual notions, ascend to the heaven of man, which is his brain, to inform him, and cause the spirits to descend from thence to reduce into practice the excellent inventions of the Understanding. Now as Reason discriminates men from brutes, so doth this Intellect men amongst themselves. And if we believe *Trismegistus* in his *Pimander*, God has given to all men ratiocination, but not Understanding, which he proposes for a reward to his favourites. *Aristotle* saith, 'tis the knowledge of indemonstrable principles and immaterial forms. *Plato* calls it, *Truth*; *Philo* the Jew, the chief part and torch of the Soul, the Master of the little world, as God is of the great, both the one and the other being diffus'd through the whole, without being mix'd or comprehended in any part of it.

The fourth said, That the humane is a substance wholly divine and immortal, since it hath no principle of corruption in it self, being most simple, and having no contrary out of it self: Eternal, since 'tis not in time but above time: Infinite, since its nature is no-wise limited, and is every thing that it understands, changing it self thereinto; not by a substantial mutation, but as the First Matter is united with the formes, remaining alwayes the same Matter; the wax remaining entire receives all

fort



fort of figures : So the intellect is not really turn'd into the things which it understands , but only receives their species wherewith it is united so closely that it is therefore said to be like to them. As likewise, though it be call'd Patient when it receives them, 'tis not to be inferr'd that it is material, since these species are material, and acting upon the Intellect alter it not, but perfectionate it. Moreover, it hath this peculiarity, that the more excellent these species are, the more perfect it is render'd ; whence after the highest things, it can as easily comprehend the less. An assured token of its incorruptibility, and difference from the senses, which are destroy'd by the excellence of their objects. But as the soul being freed from the body hath nothing to do with sensitive knowledg, because then it ratiocinates no more, but beholds effects in their proper causes, commanding and obeying it self most perfectly, exempted from the importunity of the sensitive appetite : so while it is entangled in the body it receives some impressions resulting from the parts, humours and spirits destinated to its service being in some sort render'd like to them. So the soul of one born blind is ignorant of colours, the cholerick are subject to frowardness, and the melancholy timorous, by reason of the blackness of that humour.

The Fifth said, All actions of men depending on the temper ; those of the Understanding, so long as it is entangled in the bonds of the body, are not free from it. For as that of Plants gives them the qualities proper to attract, concoct, and convert their aliments, and generate their like ; and beasts having a temper sutable to their nature, are lead as soon as they come into the world to what is convenient for them without instruction : So men are lead of their own accord to divers things, according as their souls meet dispositions proper to certain actions ; yea they are learned without ever having learn'd any thing, as appears in many phrantick and distracted persons ; amongst whom some, although ignorant, have been seen to make good Verses, others to discourse learnedly of the sublimest matters, some to speak languages, and tell things to come. Which may naturally proceed from the souls being capable of it self to know every thing (the past by help of the memory, the present by all the senses, and the future by the Understanding ; ) and meeting with a brain whose temperature is by disease render'd proper for such actions, the same being possible to befall it by such accidents as happens by age, which changing the temper of the body, is also the cause of the diversity of actions. Therefore children cannot perform the functions of the reasonable soul, because they are of a hot and moist temper, unapt for the actions of the Understanding, as, on the contrary, very fit for the actions of the vegetative and sensitive soul. So that if men were born cold and dry, they would come into the world perfectly wise and judicious ; but



because they acquire this temperature of brain only with time, therefore they are not knowing but with time.

II. Upon the second Point, it was said, That it might be handled either physically or morally. If it be demanded, upon the former principles, whether the Husband and Wife should be of the same temper, 'tis answer'd, that as Nature hath distinguish'd the Sex, so she hath assign'd to either its peculiar temperament; if a woman, which should be cold and moist, be hot and dry, she is unapt for generation, as the husband also is when, being ill qualify'd with hot and dry, he falls within the Law *de Frigidis*. But if it be question'd, morally, whether conformity of manners be more requisite to Matrimony than their diversity and difference; then, since diversity of actions is necessary in a family, the office of the husband being other than that of the wife, it seems they ought to be as different in manners as they are in the temper which produces such manners, and these the inclinations and actions.

The Second said, Those Philosophers who held that the Male and Female were each but one part of man, which name is common to both, would have concluded for resemblance of humours and manners; for they said that either sought his other half till they found it. Which made the friendships so boasted of in pass'd ages, and so rare in this, and likewise marriages, of which they that take more notice find that but few married couples have no resemblance even in their countenance. Moreover, marriages being made in heaven, and the most considerable accidents of life, the same influence which makes the marriage of the husband must also make that of the wife: and if all actions here below borrow their force from the heavens, as Astrologers hold, the husband and wife having the same universal cause of so great and notable a change, whereon depends almost all the welfare and misery of either, cannot but resemble one another. And therefore those who resemble one another most will agree best with their universal cause, and consequently, the Stars will find less resistance to produce their effects upon them, and so they will live more sweetly than if by contrariety of manners they should do as the Traveller at sea, who walks in the ship contrary to its course, or who attempts to sail against wind and tyde; or rather like those that draw several ways, whereby the cord is sooner broken than any advancement made of the load; so during this contrariety of manners nothing can go forward in the management of domestick affairs. Hence the Proverb, that we must eat many a bushel of Salt with a man before we chuse him for a friend, is interpreted that by resemblance of food a similitude of manners with him must be acquir'd: which if requisite between two friends, how much more between two married persons who ought not to have greater friends than they are one to the other; being in society of



of all the goods and all the evils of this life. Imagine one of a pleasant, the other of a melancholy humour, one loving company, the other solitude; the opposition of these contrary inclinations will render the presence of the one as insupportable to the other, as Musick and Dancing are displeasing to a sad man, or tedious complaints for one dead are to him that is dispos'd to mirth. For by this disproportion the mind receives a check, which is very disagreeable to it. If one be young, and the other old; one handsome, the other deformed; one of an amorous complexion, and the other not; the mischiefs which follow thereupon are too common to be enumerated. If one be nimble and the other slow, the actions of the one will displease the other; whereas that which pleases being or appearing good, and nothing (next our selves) being so acceptable to us as what resembles us; two persons who shall agree to do something, or not to do it, shall have peace and tranquillity of mind.

The Third said, That in Oeconomy as well as Policy, there ought to be a harmony, which consists in diversity, and not in unisonance or identity, which is every where disagreeable and dull. This made *Aristotle* desire that the man were, at least, ten years elder than the woman, the disparity of age causing that of humours; and this makes the difference which is found between individuals, one of the greatest wonders of the world. Therefore the husband and wife ought to be unlike in their manners and actions, to the end either may keep their station, the one above, the other below, one command, the other obey. Moreover, the husband and wife that always agreed would have no matter to talk of. Be the man a great talker, and the woman too, the house will be always full of noise; on the contrary, the silence of the one will give place to the other's talkativeness, and excuse it. If both be knowing or skilful, they will not esteem one another; but if one admire the other, there will be greater love between them. If both be prodigal, they will quickly see the bottom of the bag; whereas the thriftiness of the one will make amends for the expensiveness of the other. If one be sad, the other being pleasant will divert him: if not, they will both fall into the excess either of sadness or joy. If one be prophane, the party that is devout will convert him by good example. In brief, if one be severe, 'tis good that the other be gentle; if one be passionate, that the other be patient; otherwise the house will be always in an uproar.

The Fourth said, If *Justinian*, or rather his Wife *Theodora*, had not abolish'd the laudable custom of divorcing wives, introduc'd by *Spurius Carrilius*, to abate their pride and malice; or, at least, if the wives of these times were of the humour of those Roman women who having displeas'd their husbands ask'd them pardon in the Temple of a Goddess, call'd for that reason *Viriplaca*, it would not require so much care to consider the conditions requisite to a happy wedlock. In which 'tis to be observ'd



serv'd that both in nature and manners there are tempers of body, and habits of soul, absolutely good ; others absolutely evil ; and others indifferent, as the passions. The husband or wife whose body is of a perfect temper should seek for the like. For temperate added to temperate changeth not its temperature : Otherwise, 'tis fit that the defect of the one be amended by the excess of the other. For the production of man, being the noblest of all actions, requires a most perfect temperature of the four Elements in the seed of the two parents ; which would not be, if both of them be hot and dry, or cold and moist. The vertuous must seek his like, the vicious his unlike, for there's no friendship among the wicked, the converse of Thieves not deserving that name. As for the passions, and the manners commonly following them, 'tis fit that the husband have such as nature has most commonly given to men, and, consequently, that he be unlike to the wife, and she to her husband.

## CONFERENCE LXVI.

### I. Of Drunkenness. II. Of Dancing.

<sup>1.</sup>  
*Of Drunken-*  
*ness.* **T**He common saying, That the more excellent a thing is the more pernicious is its abuse, is verifi'd, chiefly, in Wine, which is not only the best of all aliments, turning soonest into our substance, making fewest excrements and most spirits, with which it hath great affinity ; but also the most excellent and benigne of all medicaments. For it so cheers and fortifies the heart that so long as a man is cup-shot he is never invaded by the Pestilence, the Wine being his antidote and preservative. It tempers the natural coldness of the Brain, helps digestion, begets laudable blood, opens obstructions, attenuates gross humours, and gives a good habit to the whole body. But taken in excess it produces mischiefs without number ; as the Palsy, Apoplexie, Epilepsie, Convulsions, Catarrhes, and such other cold Diseases ; the natural heat being unable to overcome the actual coldness of the Wine in regard of its great quantity. Yet this were not much, if its disorders did not reach the soul, subverting its government, and clouding its beauty, defacing the character which it bears of the Deity, and hindring those excellent functions of the Intellect and the Will. So that *Anesithens* the Physician, with good reason, term'd Wine the greatest benefit, and the greatest mischief of man. And therefore, as the Philosopher counsell'd such as were apt to fall into choler, to behold themselves in a Looking-glass, for so the deformity of their aspect would avert them from that vice : so he that is subject to be overcome with Wine must, like the Lacedemonians, behold the



the turpitude of this vice in others, and so abhor it ; for behold it in himself he cannot , because drunkenness prohibits him the use of the Senses.

The Second said , Man being the most intemperate of all creatures has need of vertues to moderate his irregular appetites of nutrition and generation, which nature has season'd with pleasure, as well as the other animal actions, whereof as the moderate use is agreeable to nature, so the excess is contrary to reason ; which not enduring those gross and material pleasures of the Touch and Taste, employs Temperance to repress the former by Chastity, and the latter by Abstinence and Sobriety ; the one as the rule for the eating, and the other for drinking ; both of them plac'd between two extreams ; although their defect be so rare that it hath not yet found a name amongst Philosophers. But the excess of eating is call'd Gluttony ; that of Wine, Drunkenness. Now habitual Drunkenness (Ebriosity) is never to be tolerated ; but Ebriety may sometimes, for health's sake, be allow'd ; yea every moneth, according to the Arabian Physicians, who maintain that it strengthens all the faculties, which a regular life renders drooping and languid. Whence also *Hippocrates* pronounces, in the end of his third Book of Diet, and elsewhere, that too exquisite a regiment of living is most dangerous ; those that are accusom'd to it being less able to endure any errors which they may occasionally commit in their course of Diet.

The Third said, Drunkenness is a Læsion of the Animal Faculty, caus'd by the vapours of some alimentary liquor. For medicaments, or poysons swallow'd down, cannot be said the cause of drunkenness ; none ever having conceiv'd that *Socrates* dy'd drunk when he had taken the potion of Hemlock, though he had all the same symptomes which a drunken person hath : nor is every Læsion of the nobler faculties, Drunkenness ; otherwise, the Phrenetick, Vertiginous, and such as are troubled with tremulation of their members, ought to be accounted drunk, their Reason, Memory, Imagination and Motion, being either deprav'd or abolish'd, like theirs who are intoxicated. But such Læsion is not caus'd by the fumes of Wine, which alone properly cause drunkenness ; it deserves rather to be term'd Alienation of the Mind, which may be caus'd by other vapours either internal or external, as by the smoke of Tobacco, the steam of a Cellar, or any place where new Wine is boil'd, as also that of Char-coal, which kill'd the Emperour *Jovinian*. The Oyl of Henbane-seed, as *Pliny* reports, being drop'd into the ears, causes the same trouble of judgement. *Matslack* and *Opium* cause the same disorder in the Turks that Darnel mingled with bread doth in our Peasants ; and Baume, Frankincense, and the fruit call'd *Anacardium* mingled with food. Among Beasts, the Ass is inebriated with Hemlock ; the Swine with Henbane or the husks of Grapes ; all Fish with baits made of Oak-



Oak-bark, *coque de Levant* (a small medicinal shell call'd *Unguis odoratus*) yea, *Aristotle* saith, that Flyes are inebriated with the smell of perfumes, which therefore they abhor so much, that the laying of some neer their resort is enough to drive them away. Now drunkenness properly taken is caus'd by the hot and moist vapours of Wine, rais'd by the natural heat into the Brain, whose temperature they destroy by their heat (which renders the motions of the soul violent) spoil its structure by repletion of the Ventricles, distention of the membranes, humectation and obstruction of its Nerves. For Wine being hot and moist, and inebriating by those two qualities, 'tis therefore more uneasily born by hot or moist Brains. Hence, the cholerick, children, women, and old men, are less able to withstand its violence, and are sooner overcome with it then those whose Brain is of a middle temper, between hot and moist; who are therefore said to have good Brains. For which reason stout drinking hath been so much esteem'd by some Nations; and *Cyrus* found no better argument to evince himself worthier of command then his brother *Artaxerxes*, then that he was a better drinker. Moreover, *Philip*, *Alexander*, and *Mithridates*, counted it a glory to drink well; but *Socrates*, *Plato*, *Xenocrates*, and many other Sages of Antiquity, disdain'd not to carouse sometimes. And *Homer* speaking of the wise *Hector*, seldom forgets his great goblet. The Athenians had good drinking in such repute, that they establish'd Magistrates, call'd *Oenoptæ*, to preside at feasts, and give order that every one did reason to his companion.

The Fourth said, According as heat or moisture predominate in Wine, so they imprint their footsteps upon our bodies. The signs of heat are nimbleness of action, anger, boldness, talking, ruddiness of the countenance, a pimpled Nose, Eyes twinkling and border'd about with scarlet. Those of humidity are slothfulness, numness and heaviness of the head, tears without cause, softness and humidation of the Nerves, which makes the Drunkard reel and lisse; which effects nevertheless are different according to the qualities of the Wine and the Drinker's Brain. For if the streams of the Wine be hot and dry, and they be carri'd into a hot and dry Brain, or a small Head, they cause watchings, and render the man raging and furious. If they be more humid, as those of Wine temper'd with water (which is held to intoxicate more then pure Wine, because the water assisted by that vehicle stays longer in the Brain) and the Brain be moist too, they cause sleep; and laughter, when the sanguine humour meets a more temperate Wine. For which variety of the effects of Wine, the ancients represented *Bacchus* mounted upon a Tyger, with a Lyon, a Swine, and an Ape by his side.

The Fifth said, That to drink fasting, or when one is hot, furthers intoxication, because the passages being open'd by heat, more speedily attract the Wine, and its vapours are more easily



easily lift up to the brain; as also when the stomach is empty; and the fumes of the Wine are not allay'd by those of meat. But as drunkenness may be procur'd by several means, so there are others that preserve from it. Some make Wine utterly abhorr'd; as the water that distills from the Vine, the Eggs of an Owle, or Wine wherein Eels or green Froggs have been suffocated. Others repress its violence; as the *Amethyst*, (which derives its name from its effect) a sheep's lungs roasted, the powder of swallow's bills mingled with Myrrhe; Saffron, bitter Almonds, Worm-wood, Peach kernels, the Wine of Myrtle, Oyle, Colworts and Cabbage; which preservatives were more in use among the Ancients who needed them more then we; their Wines being more vaporous and hurtful then ours: Witness *Homer*, who speaking of the Wine which *Maron*, *Apollo's* Priest, gave *Ulysses*, saith, he could not drink of it without tempering it with twenty times as much water as the strongest of our Wines can bear.

The Sixth said, That Drunkenness, as vicious as it is, wants not its benefits. For besides, that 'tis the *Anodyne* wherewith all laborious people relieve their pains; it dispels cares, and loosens the Tongue. Whence Wine is call'd *Lyæus*. Which made one of *Philip's* Souldiers say, when he was accus'd of having spoken ill of his Prince, That he should have spoken far worse of him, if he had not wanted more Wine. So that the Proverb may be more true, that Liberty (rather then Verity) is in Wine: And therefore some Lawyers advise, rather to inebriate such as are accus'd of a crime then put them to the rack; according to the example of *Josephus*, who by this means discover'd a conspiracy lay'd against him by a Souldier, whom he distrusted indeed, but had not proof enough to convict him.

Upon the Second Point it was said, That Harmony hath such power over the Soul, that it forces it to imitation. Whence those that hear an Air which they like cannot forbear to chant it softly, and sometimes it makes such impression in their Minds, that they cannot be rid of it when they would; as they experiment who fall asleep upon some pleasing song, for many times they awake repeating it. And because its powers delight not to be idle, therefore the Soul being mov'd stirs up the spirits, they the humours and the parts, constraining them to follow their bent and motion, which is call'd Dancing. This Dancing therefore is a part of Musick, which leads our members according to the cadence of the notes of a voice or instrument. It imitates the manners, passions, and actions of men; and consequently, is of different species. But their principal division was anciently taken from their place and use. For either it was private, and serv'd at marriages; or Theatral, which again was of three sorts; the first grave and serious, practis'd in Tragedies; the other more free, in Comedies; and the third lascivious and dishonest, for

II.  
Of Dancing.

F f f

Satyr.



Satyrs. The other differences relate to the Countries where they were in request, as the Ionick; to their Authors, as the Pyrrick, invented by *Pyrrhus* the Son of *Achilles*, or by *Pyrrichius* the *Lacedæmonian*, to their subject; to the instrument whose cadence they follow; to what they imitate, as that which was call'd the Crane; lastly, to the habits and other things which were worne in dancing. The most ancient, as the easiest of all, was that which took its name from a net, whereto it resembles, which is our dance in round; of which *Theseus* is made the Author, as well as of that in which the dancers intermix and pass under one anothers arms, imitating by these turnings and windings those of the Labyrinth. But the Theatral, which the Mimes and Pantomimes represented in the Orchesters, were like those of our ballads, and express'd all gestures so well, that a King of *Pontus* lik'd nothing so much in *Rome* as one of these Mimes which he obtain'd of *Nero* to serve him for an interpreter to Ambassadors. For gestures have this above voices, that they are understood by all Nations, because they are the lively and natural images of things and actions; whereas the voice and writing are but signes by institution. And hence Dancing is very dangerous when it imitates dishonest things; for it makes the strongest impressiō upon the Mind.

The Second said, That the God of Wine, surnamed by the Ancients *Chorius*, which signifies Dancer, argues the mutual relation of dancing and Wine. It hath alwayes been in so great esteem amongst warlike people, that the *Lacedæmonians* and *Thebans* went to charge their Enemies with the musick of Flutes and Hoboys; and the former had a solemn day in which the old, the young, the middle-ag'd, danc'd in three companies, with this Ditty, We have been, we are, and we shall be brave fellows. The *Athenians* went so far as to honour *Andronicus Caristius* an excellent dancer with a statue, and to choose *Phrynicius* their King for having gracefully danc'd the Pyrrhick measures, which *Scaliger* boasts he had often danc'd before the Emperor *Maximilian*. Moreover, the *Romans* committed the charge thereof to their most sacred Pontifs, whom they call'd *Salij*, that is, Leapers. *Lucian*, in the Treatise which he writ of it, ascribes the original of dancing to Heaven, since not onely all the celestial bodies, but also the ocean, the hearts of living creatures, and other sublunary bodies imitate them, following the course of the first mover. And indeed, as if dancing had something of divine, it hath alwayes been employ'd in Sacrifices and the holiest mysteries of Religion, not onely by the *Delians*, who accompany'd all their prayers with dancing; and the *Indians* who ador'd the Sun by dancing and imitating the course of that luminary; but also by the Prophet *David* before the Ark, and by *Saul*, who being full of the Spirit of God fell to dancing with the Children of the Prophets; as also did *Miriam* the sister of *Moses*, *Judith* when she had kill'd *Holofernes*, and infinite others,



in testimony of their thanksgiving to God. The Muses themselves are painted by the Poets dancing about their fountain upon Mount *Helicon*; *Apollo* is call'd dancer by *Pindar*; and the Graces are represented dancing. *Proteus*, so celebrated by the Poets, became famous onely by this Art, and which he so excell'd, that his nimble in strange postures gave occasion to the fable of turning himself into all kind of shapes, because sometimes he counterfeited the fluidity of the water, sometimes the lightness of fire, the bending of trees, the rage of the Leopard, the cruelty of the Lyon; and in brief, the nature of every sort of things.

The Third said, That Dancing is compos'd of three parts, Motion, Gesture, and Indication. For there is first a stirring up and down, then a representing things by the Gestures of the Body, chiefly by the Hand; which Art is call'd Chironomy; and those which are expert in it, Chirosofophers, that is, wise by the Hands. Hence Dancing is defin'd a motion of the Body, according to rule and number, imitating by gesture things or persons, either with singing or without. As Motion 'tis very delightful to Nature, which is as much pleas'd therein, as rest is disagreeable to it. Nor is it less so as it includes an harmonious proportion of measure, having this correspondence with Musick, Poetry, Eloquence, Painting, Comedy, and all other Arts, whose end is the delight of man. But as it is an imitation it delights marvellously, we loving nothing so much as to imitate, or to see some thing imitated. Hence works of Art please us more than those of Nature; because Art doth nothing but imitate her. Besides its delightfulness, 'tis also profitable and honest. Its usefulness is sufficiently known to Physitians, who make it a part of their Gymnastick Physick, which treats of the exercises and motions prescrib'd in order to health, and is divided into Palectrical and Saltatory. Moreover, *Galen* affirms, that he cur'd many Patients by appointing them to dance, which is an exercise of all parts of the body; whereas walking exercises onely the legs; riding, the intestines; bowling, the reins; going by ship, the stomach and brain. 'Tis also very honest or decorous, since it formes and fashions the body, giving it a good grace, one of the principal points of handsomeness. For the Soul having the Sciences to instruct the Understanding, and the Moral Virtues to rectifie the Will; the body, its dear partner, needs some habit to regulate its defects, the rather because they have influence upon the Soul; it being very difficult for the motions of the Soul to be regular so long as those of the body are not. Therefore *Plato*, in the seventh book of his Laws, requires that the instructors of youth have equally care of the body and the soul, and for this purpose teach them Musick to regulate the motions of the Soul, and dancing to frame those of the body, and give it gracefulness, as wraffling gives it strength.



## CONFERENCE LXVII.

I. *Of Death.* II. *Of the Will.*I.  
*Of Death.*

AS Being is the first and greatest good, because the foundation of all other goods, so (speaking absolutely upon a natural account) the first and greatest of all evils is the privation of that Being, which is Death; so terrible, that not onely brutes abhor the sight of their dead fellows, through fear of the same death of which they behold an image of their carcases; but men likewise, although their name of Mortals be a token of the necessity of their dying, yet use all the vain attempts they can to avoid that death which they fear as the most terrible of terrible things. Yea, all their great and violent actions and passions, take their source from this fear; which is so much greater as the evil is phancy'd nearer: Whence old or sick persons have more apprehension of it then those that are young and in health. The vulgar commonly labours onely through fear of starving. A man that is decrepit, yet, is willing to part with a limb if he may by the loss respite his death, apprehended so terrible by some, that the fear of it has kill'd some criminals before execution, and carry'd others to such madness as to kill themselves for fear of dying. Nevertheless, he that shall consider Death more nearly, will find that, being but a privation, it is nothing; and that what we fear so much is onely the way to this death, or the sequel of it; the former, in respect of irrational animals, and both in reference to man, who apprehends in the other life the judgement of the actions of this. Otherwise, Death being onely a poynt and a moment, which hath neither quantity nor extent, but approaches to Nothing, hath therefore nothing in it self for which it ought to be feared. For so long as the Animal hath sense it is not dead; and so soon as 'tis dead, it hath no more. And because 'tis a motion and passage from Being to not Being, between which two there is no *medium* or middle; therefore 'tis a pure nothing, and consequently, hath no foundation saving in the troubled Phancy: Since upon due perception of things, that which ~~is~~ not is no-wise to be fear'd, by those that are insensible, yea, that exist no more.

The Second said, That to maintain Death to be nothing, is to accuse not onely all men of folly in fearing what exists not, and consequently, is not capable of producing any effects or passions; but likewise, Nature of imprudence, in having imprinted this apprehension in all creatures for their preservation. As therefore Reason and Experience teach us that there are substantial generations; so the same shew us the true and substantial corruptions of all compounds; which corruption, in a thing endu'd with life, is call'd Death, which is the separation of the Soul from  
the



the Body. For the *Platonists* are ridiculous when they make two kinds of this separation, namely, that of the Soul from the Body, which they call Extasie, and that of the Body from the Soul, which alone they say is to be call'd Death: For they are both one and the same thing; and Extasie is not a separation of essence, but of power, hapning when the Soul is so glu'd to an object, in the contemplation whereof it employes all its powers, that there remains none for corporeal functions; the Eyes not perceiving what is then presented to them. Whence the Soul being more where it loves than where it lives, is also more where it understands. Now Death is either natural or violent. The former caus'd by the consumption of the radical moisture of plants and animals. For they alone are capable of dying, as they are of living; what they attribute to Fire, the Load-stone, and some other inanimates, being purely Metaphorical. Violent death is produc'd either by internal causes, as diseases, or by external. 'Tis caus'd by destroying the harmony of the parts and humours, which constituted life; after which destruction, the Soul not finding the organs longer meet for exercising its functions, (as Fire that wants unctuous and combustible humidity) forsakes its matter to retire into its own sphere. And though the corruption of one be the generation of another, there being no matter but hath alwayes some form, as Bees are generated out of dead Oxen; yet there is this distinction, that the progress of a form less noble to one that is more, is call'd generation or life, as when an Egg is made a chick; but when this progress is made from a more noble form to a less, as from a man to a carcase, then 'tis call'd Corruption and Death, if the form preceding were vital. Thus all are wayes of Death which lead to corruption. The first of these wayes is life, for nothing comes under its Laws but is subject to those of Death, considering the wayes that we dye as we are borne, and that our end depends on our original; as there is no harmony but must end in discord, the latter note not being capable to accord with the first rest, which is the end or death of harmony; whereunto our life is not onely compar'd, but may be fitly defin'd by it, that *Galen*, enlightned by Reason alone, conceiv'd the Soul to be nothing else.

The Third said, That onely in the death of men there is a separation of the Soul from the Body; seeing that after the death of animals and plants there still remain faculties in their bodies which cannot depend on the sole mission of the Elements, but must be referr'd to some internal principle, which can be no other than their Soul. Yet with this difference, that as during life these faculties were as formes in their matter, so after death they are as substances in their place, though without any activity, for want of necessary dispositions; which return afterwards by generation, or the action of the celestial bodies, producing wormes and other animals, which come of themselves, and never but from a nature formerly animated, not receiving by this new generation



generation any substantial form, but onely making the Soul appear ; which was kept as 'twere buried before this refuscitation. Thus the death of plants and beasts is the privation of their vegetative and sensitive actions, the principle of those actions alwayes remaining, But that of men, besides this privation of their actions, causes the dissolution of the Soul from the Body, which is properly death. The inevitable necessity whereof is by *Avicenna* deriv'd from four chief causes. I. From the Air, which alters and dryes us. II. From our own heat, which by accident destroyes it self. III. The continual motion of our bodies furthers the dissipation of that heat. IV. The various Inclination of the Elements, some of which are carry'd upwards, others downwards, and so break the union which preserves our life. *Albert* the Great assigns a fifth cause, namely, the contrariety of forms and qualities ; death happening when humidity hath given place to drynesse. But because this excesse of drynesse might be corrected by its contrary, therefore the Moderns lay the fault upon the radical moisture. Which some of them say we receive from our Parents, and is continually impair'd, without being at all recruited from the birth. But this is absurd ; for then the Son must have infinitely lesse then his Father, because he receives but a very small portion, which (besides) cannot be distributed through a great body, nor afford supply to so many actions. Others, more probably, affirm, that the *Humidum* which is repair'd is not of the same purity with that which we derive from the principles of our birth, by reason of reaction, and its being continually alter'd by our heat. But that which indubitates this reason, is, that the Elements do not maintain themselves but by reaction, notwithstanding which they cease not to be alwayes in the same state ; Fire as hot, Air as moist as ever it was : Inasmuch as the substantial forms expell all Qualities which are not suitable to themselves, and recover their natural ones, without other assistance. Moreover, when old men beget children, they communicate to them an excellent radical humidity, otherwise there would be no generation ; and consequently, they can do as well for themselves as for their posterity. But if they give them such as is bad and corrupt, it follows that their children who live after their death re-produce much better by their nutrition then that which they had receiv'd ; and, consequently, the radical humidity may not onely be repair'd, but meliorated. And there's no reason why an exact course of dyet may not keep a man from dying, as the Chymists promise. I had therefore rather say that as the union of the Soul with the Body is unknown to humane wit, so is their disunion ; which I ascribe rather to the pleasure of the supreme Ruler, who causes us to abide sentinel as long as he thinks meet, then to any natural thing ; which is the reason why those that deprive themselves of life are justly punish'd ; because they dispose of what is not their own, although it seemes to the vulgar that



that they do wrong to none but themselves, because 'tis by their own will and act.

The Fourth said, What is compos'd of contraries, between which there is continual action, necessarily receives fundry changes and alterations in its being, which by degrees bring it to a total corruption. This is conspicuously seen in the life of man, the ages and all other mutations whereof are as so many steps towards death. 'Tis the most worthy employment of a man to consider that he dyes every day. For, as *Seneca* saith, that which deceives us is, that we consider death as afar off; whereas a great part of it is already pass'd, for it already possesses all the time that we have been; which is the cause, that instead of employing our time profitably, we consume a great part of it in doing nothing, a greater part in doing ill, and all in doing other things then ought to be; which proceeds from not thinking often enough upon death; as which no Preacher is so powerful. For the fear it imprints in the soul vertue it self cannot wholly eradicate; the sole aspect of the shades of the dead, or their voices imprinting paleness upon the countenance of the most resolute. Therefore the Philosopher holds that the fear of death is not only competible with courage, but that he who fears it not at all, rather deserves the name of mad then valiant.

The Fifth said, That they who have had recourse to death to deliver themselves from their miseries, as *Brutus*, *Cato*, his daughter *Portia*, and some others, have shew'd thereby that death is not the most terrible thing, since they embrac'd it as a remedy to their misfortunes. But that which renders our experience as well as our reasoning weak in this matter, is, that none can give account of it either before or after trial; for while we live, it is not yet, and when it is, we are no longer. Nevertheless *Plato*, in his *Timæus*, affirms that violent death caus'd by diseases or wounds is painful, but not that which comes of old age, which (he saith) happens by dissolution of the triangles which retain the Soul in the Body. For the former being against nature is as troublesome to it, as the other which following the course of nature is agreeable to it; because the soul having finish'd its task begins now to resent some foretastes of beatitude; and hence it begins also to have some knowledge of future things. At least, this sort of death is very little sensible, being caus'd slowly and equally, and by consequence without pain. Yea, if it be true that the Heart is the last part that dyes, the brain losing sense before the Heart cannot communicate the same the same to the whole body; which consequently feels not the pains of death, but those which lead to it, and which make their pangs more felt by those that bear up against them; by reason of the resistance of their strength, then when the strength is overcome and fails; whence those that have Apoplexies endure no pain during the course of their malady. And such as  
have



have been taken down half dead from the Gallows, agree that they endur'd nothing but fear. For which cause this kind of death is accounted very easie and without any sense; the brain being depriv'd thereof by compression of the *Carotides*, Arteries which carry the spirits to it, and become apoplectical by the quantity of blood which is included in it; as also the heart being stiff'd falls into *deliquium*, and the principal parts are depriv'd of sense by the constriction of the Nerves of the sixth pair. Those whom a Gangrene in the leg or arm (parts more sensible than those within) brings to their end, affirm that oftentimes death comes upon them without pain. Indeed, since life ends as it begins, and the soul goes out of the body after the same manner that it enter'd into it; therefore as, at its entrance, it first exercises the vegetative operations, afterwards the sensitive; so the vegetative faculty remains last, subsists in the dying creature when all the rest are extinct, and is lost without sense, in the same manner as in Plants. For the convulsive motions of dying persons argue not their having of sense, since those that are in an Epileptical fit suffer much greater without pain.

1<sup>st</sup>. Upon the second Point, it was said, That every created thing  
*Of the Will.* having a tendency towards its chief natural good, hath also faculties whereby to attain the same. This chief good is the supreme perfection of its being. And because that of man consists in knowing truth, loving good, and being united by enjoyment to both the one and the other, he hath been likewise furnish'd with powers for this end; two, wherewith to know, and as many to love, according to the two sorts of goods whereof he is capable, as compos'd of a sensitive part and an intellectual. He knows sensible good by help of the Senses, which gust the same in its whole latitude, and honest good by the Understanding. He loves sensible good by the sensitive appetite, and honest good by the Will, which is a rational desire of good. For it loves not any good which hath not first been judg'd such by reason, which serves it in stead of eyes, being a blind faculty of it self, that is, without knowledge; whence they say, knowing must go before loving. And 'tis not necessary that this good be truly such of its own nature; if it be apprehended as such, this is sufficient to render it the object of our will. Nevertheless being good but in appearance it only takes the will for a while, but do's not satiate it as honest good doth, towards which we have a natural inclination. Whence it is that such as have deviated from it, as soon as their understanding is recti'd, resent an inward grief thereupon, which is that dictate of Reason call'd Synteresis.

The Second said, That the Will is the mistress of all the animal powers, which it causes to operate and forbear as it pleases; exercising its dominion too over the Understanding, which it commands to take notice of, and contemplate, one object rather than



then another. Nevertheless as the pores subject to it are different, so is the empire distinct which it exercises over them. For that which it hath over the loco-motive faculty is a despotical empire, such as a Master hath over his servant; that which it hath over the sensitive appetite and other faculties, is Political, like that of a Magistrate over his fellow Citizens, who obey him so, that yet they forbear not to do many things without him and even against his will. The motions of the sensitive appetite being herein like those of the Celestial Spheres, which follow that of their superior Sphere, and nevertheless have a contrary one of their own. And this Appetite is carri'd not only to its particular object without the command of the Will; but also towards things wholly contrary to it; and this, for punishment of the sin whereby the will rebelling against God deserv'd that the appetite, at first subject to it, should become rebellious to it, destroying the agreeable harmony which appear'd in the state of innocence. Which contrariety is the greater, in as much as the object of the will is honest, which is commonly difficult; and that of the sensitive appetite delectable: which two being opposite draw it several ways; and hence arise the conflicts of the flesh against the spirit, yea the same man at the same time, and for the same thing, feels contrary motions in himself; a certain evidence of their real difference.

The Third said, 'Tis the Will alone that makes us happy or unhappy, since it makes us good or bad; and nothing is such unless it be voluntary and free. Hence it hath so great a power that it alone over-rules the Stars which govern all; being capable of having inclinations contrary to theirs. It is known, as other faculties are, by its actions, which are either extrinsecal, as commanding the animal faculties, or within it self, as willing or not willing, pursuing or aversion, joying or grieving. For the property of man being to know his end as such, if this end be good, he wills it; if evil, he wills it not; if absent, he pursues it; if present, he enjoys it: if the evil be absent, he averts from it; if present, he is afflicted by it. But before the will attain this end, it proposes, consults, and deliberates of the means to arrive thereunto, which it compares together in order to find which is most expedient, and is carri'd to the same with perfect freedom.



## CONFERENCE LXVIII.

## I. Of the Magnetical Cure of Diseases.

## II. Of Anger.

I.  
Of the Mag-  
netical cure  
of Diseases.

It is requisite to agree upon the Facts before inquiry into Right. Now many Authors report that wounds have been cur'd by the sole application of a certain Unguent (which for this reason they call *Armarium*) to the instrument or offensive weapon that made it. And *Goclenius*, a German Physitian, affirms that he saw a Swedish Lady cure one of her servants so, that had been hurt by a blow with a knife by his companion; and that this cure is very common, having been practis'd in presence of the Emperour *Maximilian*. Yea, that 'tis ordinary for the Peasants of his Country to cure hurts in their feet, by sticking the nails or thorns which made them in Lard or Bacon. Many Farriers cure prick'd horses by digging up as much ground as their foot cover'd. Behold the ordinary composition of the aforesaid Oyntment. Take an ounce of the unctuous matter that sticks on the inside of the Scull of one hang'd and left in the air; let it be gather'd when the Moon encreases, and is in the Sign either of *Pisces*, *Taurus* or *Libra*, and as neer as may be to *Venus*, of Mummie and man's blood yet warm, of each as much; of man's fat, two ounces; of Lin-seed-oyl, Turpentine, and Bole Armenick, of each two drams; mingle altogether in a Morter, and keep the mixture in a long-neck'd glass well stop'd. It must be made while the Sun is in the Sign *Libra*; and the Weapon must be anointed with it, beginning from that part which did the mischief; from the point to the hilt, if it be a thrust; and from the edge, if it be a cut or blow. Every morning the Patient must wash his hurt with his own Urine, or else with warm water, wiping away the *pus* which would hinder union. The weapon must be swath'd (as the wound uses to be) and kept in a temperate place. For otherwise, they say, the Patient will feel pain. If you would hasten the cure, the weapon must be dress'd often; and if you doubt of the part which did the mischief, it must be dip'd all over in unguent. If the hurt be small, 'twill be enough to dress the weapon every other day; washing the hurt every morning and evening. But this is not to be practis'd in wounds of the Arteries, Heart, Liver and Brain; because it would be to no purpose. Now by the nature of the ingredients and their conformity with us, their effect seems to be natural, and grounded upon the sympathy that there is between the blood issu'd from the wound and remaining on the weapon, and that which is left in the wounded body, so that the one communicates to the other what good or evil it receives



ceives, although it be separated from the whole. As they affirm that those whose leg or arm is cut off, endure great pains when those parts that were lop'd off corrupt in the earth. Which happens not, if they be carefully embalm'd. So the Bee, the Viper, and the Scorpion, heal the hurts made by themselves. Of which no other reason is alledg'd, but this correspondence and similitude of the parts to their whole; the bond of which is very strong, although to us invisible.

The Second said, There's no need of recurring to these superstitious remedies, since Nature of her own accord heals wounds, provided they be not in the noble parts, and be kept clean from the impurities generated in them through their weakness, which hinder union; which is an effect of the natural Balsam of the blood; and therefore not to be attributed to those Chimerical inventions, which have no affinity with the cure whereunto they are intitl'd. For every natural agent is determin'd to a certain sphere of activity, beyond which it cannot act; so the fire burns what it touches, heats what approaches it, but acts not at any remote distance whatever. Moreover, time and place would in vain be accounted inseparable accidents from natural motions, if this device held good; considering that contact is requisite to every natural action, which is either Mathematical, when surfaces and extremities are together; or Physical, when the agents touch the Patients by some vertue that proceeds from them. Neither of which can be, unless the body which heals touches that which is heal'd. For all Medicinal effects being to be referr'd to Elementary qualities, there is none of them more active then heat; which being circumscrib'd within its bounds, even in the aliment of fire, can be no less elsewhere.

The Third said, That the doctrine of the common Philosophy which teacheth that natural agents always touch one the other is erroneous, or else ill explain'd and dependent upon other false principles which attribute all actions to elementary qualities, which are taken for univocal causes, whereas themselves are but equivocal effects of other supream causes, the first of which is Heaven. For when God created the world immediately with his own hands, he was pleas'd to commit the conduct of natural causes to the Heavens, that he might not be oblig'd to make every day new miracles, as were those of the Creation. For this end he fill'd them with spirits sufficient to inform all sorts of matters, whose mixture requir'd some new form and change. This made the Philosopher say, that the Sun and Man beget Man; and *Hermes*, in his *Smaragdine* Table, that the things which are below are as those which are on high. And the Astrologers hold that there is nothing here below but hath some proper and peculiar Star, some of which appear, but far more appear not in the Heavens, in regard of their disproportion to our sight, or their neer conjunction as in the milky



way. But if the respective correspondencies of all the Celestial Bodies be not so clearly evident in other sublunary bodies as that of the Pole-star is with the Load-stone, of dew with the Sun, of this and the Moon with the Heliotrope and Selenotrope, yet are they no less true. 'Tis credible therefore that the Weapon-salve hath such sympathy with the Constellation which is to make the cure of the wound, that by its magnetick vertue it attracts its influence from Heaven, and reunites it (as a Burning-glass doth the Sun-beams at as great distance) by which means it is deriv'd to the instrument that made the wound, communicating its healing vertue to the same, as the Sun likewise communicates his heat to the earth, which heats us afterwards: and thus this instrument being indu'd with a sanative vertue communicates the same to the wound made by it; the cure of which, besides the form and connexion of the instrumental cause with the effect, is further'd by Nature, (which always tends to preserve it self) and the imagination of the wounded person (which induces *Hippocrates* to require that the Patient have hope and confidence in his Physitian) for this (as its contrary ruins many by dejecting their strength) doth miracles towards a recovery. The contact above spoken of hath no difficulty, nor yet the objection why other wounded persons residing in some intermediate place between the anointed Instrument and the Patient are not rather cur'd then he; considering that the same thing is observ'd in the Load-stone, which draws not the wood or stone laid neer it, but the Iron beyond them; and the Sun heats not the Sphere of the Moon, and the other Heavens, nor yet the two higher Regions of the air, but only ours cross that vast interval of cold and humid air; because he finds no congruency thereunto, besides the not reflexion of his beams. Wherefore the contact of the anointed Javelin and the Wound may as well be call'd Physical as that of the Sun and us, which never stirs from his Sphere. Besides that we have examples of many contacts made without manifest *mediums*, as those of pestilential and contagious Fevers, of blear'd-eyes, of the Wolfes aspect causing hoarseness, and the killing looks of the Basilisk. And indeed if you take away all cures that are wrought by occult and inexplicable means, there will be nothing admirable in Physick.

The Fourth said, That in assigning the reason of effects, men ordinarily mistake that for a cause which is not so. The Rose is not cold because it is white, for the Red-rose is so too: Spurge is not hot because it hath a milky juice, for so have Lettice, Endive, &c. which are cold: Aloes is not hot because it is bitter, for *Opium*, which kills through its coldness, is of the same taste. They also erroneously attribute the cure of diseases to sympathy, to the power of characters, words, images, numbers, celestial figures, and such other things which have no activity at all: and most extraordinary cures are effects of the strength of the Mind, which is such that where it believes any thing firmly,  
it



it operates what it believes, and that with efficacy, provided, the subject on which it acts do not repugne. But if it comes to have a firm belief of the effect, then it follows far more easily. For if the understanding is identifi'd with what it knows, why shall it not make things like to it self? To which firm belief I refer the magnetick cure of wounds, and not to that sympathy of the blood on the weapon with that in the veins; since if two parts of the same body be wounded, the healing of the one will not suffice to the healing of the other; and yet there's more sympathy between the parts of the same body animated with the same form then they have with a little extravasated blood which hath lost all the dispositions that it had like the whole mass.

Upon the second Point, it was said, That Nature has so provided for the contentment of animals that she has given them not only an appetite, to pursue good and avoid evil, when both may be done without difficulty; but also a different one, to give courage to the former, and to surmount the difficulties occurring in the pursuite of that good, and the eschewance of that evil, term'd the Irascible appetite, from anger the strongest of its passions; which serves to check the pungency of grief, as fear and boldness come to the assistance of flight, and desire is guarded with hope and despair. This is the opinion of *Plato*, who makes three sorts of souls; one which reasons, another which covets, and the third which is displeas'd; the former of which he places in the Brain, the second in the Liver, and the last in the Heart. *Anger then is a passion of the Irascible Appetite caus'd by the apprehension of a present evil which may be repell'd, but with some difficulty.* Its principle is the soul; its instrument the spirits; its matter the blood; its seat the heart, not the will, as *Cardan* erroneously conceiv'd; for the actions of the will, not being organical, make no impressions or footsteps upon the body. It proceeds either from a temper of body hot and dry, and easie to be inflam'd, or from the diversity of seasons, times, ages and sexes. Hence the cholerick and young persons are more inclin'd to it then the phlegmatick and aged; because they have a temper more proper to this passion: Women and children are easily displeas'd through weakness of spirit; as 'tis a sign of a sublime spirit not to be troubled at any thing, but to believe that as every thing is below it self, so nothing is capable to hurt it. Which reason *Aristotle* made use of to appease the choler of *Alexander*, telling him that he ought never to be incens'd against his inferiors, but only against his equals or superiors; and there being none that could equal, much less surpass him, he had no cause to fall into anger.

II.  
Of Anger.

The Second said, That the Faculties extending to contraries, the eye beholding both white and black, and the ear hearing all sort, of sounds, only the sensitive appetite is carri'd both to  
good



good and evil, whether accompani'd with difficulties or not, as the will alone is carri'd towards all kind of good and evil. And as the same gravity inclines the stone towards its centre, and makes it divide the air and water which hinder it from arriving thither, so the sensitive appetite by one and the same action is carri'd to good, flees evil, and rises against the difficulties occurring in either. Thus anger and grief are in one sole appetite; yea anger is nothing but grief for an evil which may be repell'd. For it hath no place when the offender is so potent that there is no hope of revenge upon him; although 'tis rare that a man esteems so low of himself as not to be able to get reason for a wrong done him, or apprehended to be done him; this passion, as all others, being excited by causes purely imaginary. Thus a single gesture, interpreted a contempt, offends more than a thrust with a sword by inadvertency. And this the more if the contemners be our inferiors, or oblig'd to respect us upon other accounts. Which makes the enmities between relations or friends irreconcilable. For as a good not foreseen rejoices more, so the injury of a friend displeases us far above one done us by our enemies, against whom he seem'd to have some reason who implor'd not so often the aid of Heaven, (because he said Nature taught him to beware of them) as against his friends, because he did not distrust them.

The Third said, Anger may be consider'd two ways, either according to its matter, or its form. In the former way 'tis defin'd an Ebullition of the blood about the Heart. In the latter, a desire, with grief, to be reveng'd for an injury done to himself, or his friends, whom a man is oblig'd to uphold; especially if they be too weak to avenge themselves. Injury consists either in deeds, or words, or gestures. The first is the most evident, and oftentimes least sensible; for words offend more; because, being the image of thoughts, they shew us the little esteem made of us. And as gesture is more expressive than words, so a contempt signifi'd by it touches more to the quick than any other; because he that contemns us with a simple gesture accounts us unworthy of all the rest. Now if this contempt be offer'd in the presence of those that honour us, or by whom we desire to be valu'd and admir'd, it excites our choler the more if it be truth, which always displeases us when it tells our defects, especially by the mouth of our enemy. But none are so soon provok'd as they that are desirous of some good. For then the least things incense; because desire being of an absent good cannot subsist with the least present evil (the object of anger) because of their contrariety, importuning the actions of the soul, which is troubled in the pursuit of good by the presence of evil. Whence, saith *Aristotle*, there needs but a small matter to anger Lovers, sick people, indigent, those that miscarry in their affairs, and are excruciated with hunger or thirst. 'Tis therefore an error to say, that choler is the cause of anger, and



and 'tis vain to purge this humour in order to remedy this passion, since the cause is external, not internal; and is form'd first in the brain by the imagination of an injury receiv'd; after which the Soul, desirous of revenge, stirs the motive power; this the blood and spirits, which cause all the disorders observ'd in angry persons.

The Fourth said, That disorders caus'd by Anger are not to be wonder'd at, since 'tis compos'd of the most unruly passions, love, hatred, grief, pleasure, hope and boldness. For the source of anger is self-love; we hate him that doth the injury, we are troubled at the offence, and receive contentment in the hope of being reveng'd; and this hope gives boldness. Now Anger is one of the most deform'd and monstrous passions, so violent that it enervates not onely the contractive motion of the Heart by dilating it too much, and sending forth the blood and spirits, (which cause an extraordinary heat, and force in all the members, and sometimes a Fever;) but also that of dilatation by shutting it too much, in case the grief for the evil present be great, and there be hopes of revenging it. The Countenance looks pale, afterwards red, the Eye sparkles, the Voice trembles, the Pulse beats with violence, the Hair becomes stiff, the Mouth foams, the Teeth clash, the Hand cannot hold, the Mind is no longer in its own power, but is besides it self for some time; Anger not differing from Rage but in duration. Which made a Philosopher tell his servant, That he would chastise him were he not in Anger: And the Emperor *Theodosius* commanded his Officers never to execute any, by his command, till after three dayes; and the Philosophers *Xenodorus* to counsel *Augustus*, not to execute any thing when he found himself in choler, till after he had repeated softly the twenty four letters of the Greek Alphabet. The truth is, if this passion be not repress'd, it transports a man so out of himself, that he is incens'd not against men onely, but even against beasts, plants, and inanimate things; such was *Ctesiphon*, who in great fury fell to kicking with a mule; and *Xerxes*, who scourg'd the Sea. Yea, it reduces men to such brutality, that they fear not to lose themselves for ever, so they may but be reveng'd of those that have offended them; as *Porphyrie* and *Tertullian* did, the former renouncing Christianity, and the other embracing *Montanus's* Heresie, to revenge themselves of some wrong which they conceiv'd they had receiv'd from the Catholicks. And our damnable Duels, caus'd by this passion, have oftentimes to satisfy the revenge of one, destroy'd two, Body and Soul.



## CONFERENCE LXIX.

I. *Of Life.* II. *Of Fasting.*I.  
*Of Life.*

**T**He more common a thing is, the more difficult it is to speak well of it; witnesse sensible objects, the nature whereof is much in the dark to us, although they alwayes present themselves to our senses. Thus nothing is more easie then to discern what is alive from what is not; and yet nothing is more difficult then to explicate the nature of Life well, because 'tis the union of a most perfect form with its matter, into which the mind of man sees not a jot; even that of accidents with their subject being unknown, although it be not so difficult to conceive as the first. Some have thought that the form which gives life is not substantial but onely accidental, because all (except the rational) arise from the Elementary Qualities, and accidents can produce nothing but accidents. But they are mistaken, since whereas nothing acts beyond its strength, if those forms were accidents, they could not be the causes of such marvellous and different effects, as to make the fruits of the Vine, Fig-tree, &c. and blood in Animals; to attract, retain, concoct, expell, and exercise all the functions of the Soul; which cannot proceed from heat alone, or any other material quality. Besides, if the forms of animated bodies were accidents, it will follow that substance (which is compounded of Form as well as of Matter) is made of accidents; and consequently, of that which is not substance, contrary to the receiv'd Axiom. Therefore Vital Forms are substances, though incomplete, whose original is Heaven, the Author of Life and all sublunary actions.

The Second said, That the Soul being the principle of Life; according to the three sorts of Souls, there are three sorts of Life, namely, the Vegetative, Sensitive, and Rational; differing according to several sublimations of the matter. For the actions of attracting and assimilating food, and the others belonging to Plants, being above those of stones and other inanimate things, argue in them a principle of those actions, which is the Vegetative Soul. Those of moving, perceiving, imagining, and remembering, yet nobler then the former, flow from the Sensitive Soul. But because the actions of the Intellect and the Will are not onely above the matter, but are not so much as in the matter, (as those of Plants and Animals) being immanent, and preserv'd by the same powers that produc'd them, they acknowledge for their principle a form more noble then the rest, which is the Rational Soul, the life of which is more perfect. And as the Plantal Life is the first and commonest, so it gives the most infallible vital tokens, which are nutrition, growth, and generation. Now that all three be in all living bodies: For  
Mushrooms



Mushrooms live but propagate not; as some things propagate, yet are not alive; so bulls blood buried in a dung-hill produces worms; others are nourish'd but grow not, as most Animals when they have attain'd their just stature; yea, not every thing that lives is nourish'd; for House-leek continues a whole year in its verdure and vivacity being hung at the feeling: Nor does every thing grow alike, for we see Dodder, which resembles Epithymum, clinging to a bunch of grapes, or other fruit hanging in the Air, grows prodigiously without drawing any nourishment from it or elsewhere. Whereby it appears that there is no Rule but has its exception, since Nature which gives the same to all things, oftentimes dispenses with her self.

The Third said, The Soul is the act of an Organnical Body endu'd with Life, and the principle of vegetation, sense, and motion; according to *Aristotle*, an Intellective or continual motion; according to *Plato*, a Number moving it. And consequently, Life is nothing but motion; and a thing may be said to be alive when it is able to move it self by any kind of motion, whether of generation or corruption, accretion or diminution, local motion or alteration. For the most evident sign of Life is self-motion. Whence we call such, Living Waters, which flow; and those dead, which stand still; although improperly, because this motion is extrinsical to them, namely, from their source, and the declivity of the earth. The *Pythagoreans* therefore believ'd the Heaven animated, because it is mov'd according to all the differences of place; and that this Animal is nourish'd with the Air which it draws out of the spaces which we call Imaginary. Now as powers are known, so they are distinguish'd by their actions. So that the perfecter the motion is which denotes Life, the perfecter the Life is. Therefore, as Oysters and other imperfect Animals, endu'd with sense, enjoy a nobler life than plants, which onely vegetate; so they are inferior to other perfect Animals, which besides sense have progressive motion; and these, again, the slower and more impedit their motion is, the more they yield in dignity to others; as the Snail to the Dog and Hare. In brief, these are lesse noble than Man, whose Soul is mov'd after a more admirable manner; and who hath the faculty of Understanding, the most perfect of all; which being found in God in a far higher degree, because it constitutes his whole essence, being and Understanding (being in him one and the same thing) he hath the most perfect life of all. Which is the cause why our Lord saith, *that he is the Life*. Moreover, as the First Matter, which is the lowest of all things that are, (if it may be said *to be*) hath need of all; so the sublimest of all things, God, hath need of nothing, but includes in himself all perfections, the chiefest of which is Life, which all Creatures enjoy onely by participation from him.

The Fourth said, Life is a continual action of Heat upon humidity,

H h h

midity,



midity, the periods whereof are distinguish'd by the several effects of this heat, to wit, the alterations of temper, and diversity of ages. For 'tis Physically as well as Morally true, which *Job* saith, that our life is a *warfare* upon the earth, since a thing is not accounted living unless so far as it acts, Death being the privation of actions; and there is no action but between contrary qualities, of which heat and moisture are the foundation of life, as cold and ficcidity are the concomitants of death, old age which leads us thither being also cold and dry. Hence they are the longest liv'd who have most heat, as Males then Females; terrestrial animals then Fish, those which have blood then those which have not. As also those that abound with this humidity live long, provided it have the qualities requisite, namely, be fat, aerious, and not aqueous or excrementitious, because otherwise it easily cools and congeals, and by that means incongruous to life.

The Fifth said, That heat being the most noble and active of all qualities executes all the functions of life, when it meets with organs and dispositions suitable thereunto. This heat must be in act, and not only in power, such as that of Lime and Pepper is. And though it be not so sensible in plants, yet it ceases not to be actually in them so long as they are alive, and to digest and assimilate the aliments which it draws for them out of the earth ready prepar'd; whence they have no excrements as animals have. With whom nevertheless they have so great resemblance that *Plato*, in his *Timæus*, saith, that Plants are *tanquam animala*; and *Pythagoras* conceiv'd them to be inform'd with the souls of some men, who having liv'd in the world without exercising other actions then those of the vegetative life, addicting themselves to nothing but to feed and generate, are condemn'd to pass into the bodies of Plants; as the souls of those who have lead a brutish life are relegated into those of Swine, Tygres, Lyons, and other brutes whose manners they had imitated. *Empedocles* and *Anaxagoras*, as *Aristotle* reports, attributed to Plants a perception of pain and pleasure. Moreover, they have not only their maladies, old age and death, as animals have, but some too have differences of sex, and local motion, as 'tis observ'd of certain Palmes which bend towards one another; and of divers other Plants which recoil from those that are contrary to them, and grow best neer others.

The Sixth said, Life is nothing but the union of the soul with the body; which requires a fitting temperature and conformation; from whence afterwards proceed all actions and motions both internal and external. Wherefore life is not an action of an action; (which is absurd) but hath its own actions. Nor is it the action of the soul; for then the body could not be said to live. But 'tis the act of the soul in the body; which being finite and terminated, as heat its principal instrument is, this is the cause that all living bodies have the terms or bounds of their quantity,



quantity, both as to greatness and smallness; but bodies inanimate have not so, because they acquire their quantity only by the approximation and apposition of their matter, and not by receiving the same inwardly; and because they have no organs which require a certain conformation and magnitude which they never exceed.

Upon the second Point, it was said, That there are many sorts of corporal Fasts (not to speak of the spiritual, which is abstinence from sin.) There is one of *necessity*, and the most intolerable of all, which made the ancient Poets declaim against Poverty, saying that it was to be cast into the sea against the rocks; and which made so few Cynicks, in respect of so many other Sects of Philosophers. Against which evil there is no other remedy, but to make that voluntary which cannot be avoided. There are fasts of *thrift* for the Covetous; and others of *Policy*, observ'd in many States to good purpose, lest the Country be desolated of Cattle; and would be, should men eat eggs and flesh in the beginning of the Spring, when Fowls hatch and Beasts engender, at which time the flesh of animals is unwholsome because they begin then to enter into heat. There is a fast of *Health*, ordain'd by Physicians to such as are full-bodied, and abound with ill humours; this is the best lik'd of all; nothing being undertaken so willingly as for health, whereunto moderate fasting greatly conduces, as well to preserve it, (according to the Proverb, that Gormandise hath slain more then the Sword) as recover it, according to the advice of the Arabians, and other Physicians, who all acknowledge intemperance for their best friend, and are wont to prescribe Diet in the first place, to which belong primarily Fasting, then Medicaments, and, lastly, Cauterics. There is also a *moral* fast, which is a virtue which in eating observes a measure sutable to nature, and right reason, for the taming of the sensual appetite, and encreasing the vigour of mind, which is enervated by plenty of meats. A virtue which S. *Austin* calls the keeper of the memory and Judgement, Mistress of the Mind, Nurse of Learning and Knowledge. But the Fast of Religion is the most excellent of all, because it refers immediately to God, who by this means is satisfi'd for sins; because it abates the lust of the flesh, and raises the spirit to contemplation of sublime things, purifying the soul, and subduing the flesh to the spirit; but particularly that of Lent, whose sutableness is manifest, in that this time is the tenth part of the year, which we offer to God, as from all antiquity the tenths of every thing were dedicated to him. Moreover, 'tis observ'd that *Moses* and *Elias* who fasted forty days (the longest fast mention'd in Scripture) merited to be present at our Lord's Transfiguration.

The Second said, Fasting is an abstinence from food, as to quantity or quality. As to the first, some have abstain'd long from all



kind of food, as Histories assure us; and *Pliny* tells of the *Astomi*, a people of *India* neer the River *Ganges*, who have no mouths, but live only upon smells. But 'tis abstinence too when we eat little and soberly, and only so much as is needful for support of life; such as were the abstinences of the Persians and the Lacedemonians, with whom it was a shameful thing to belch, or blow the Nose; these being signs of having taken more food than nature is able to digest. The Gymnosophists, Magi, and Brachmans, rigorously observ'd these fasts. In quality, we abstain from some certain meats. Thus the Jews abstain'd from all animals except such as chew'd the Cud, and were cloven hoof'd. And amongst them the Nazarites were forbidden by God to drink Wine or any inebriating liquor; as the Essceans, a Sect of Monasticks, besides Wine, abstain'd from flesh and women. *Pythagoras* abhorr'd Beans as much as he lov'd Figs, either because the first were us'd in condemning criminals, or because they excited lust by their flatuosity. None of this Sect touch'd fish, out of reverence to the silence of this animal; and they made conscience of killing other creatures in regard of their resemblance with us. which was also observ'd by the first men before the Flood for 2000 years together; the Law of Nature, which then bore sway, making the same abhor'd. But this fast is much harder in our diversity of fare than when only Acorns serv'd for food to our first Fathers; when the Athenians liv'd of Figs alone, the Argians and Tirynthians of pears, the Medes of Almonds, the Æthiopians of Shrimps, and the fruits of Reeds, the Persians of Cardamomes, the Babylonians of Dates, the Egyptians of Lote, as the Ichthyophagi of Fish; of which dry'd and ground to powder many Barbarians make bread at this day, and their meat of the fresh. For in those days people liv'd not to eat, as many do in these luxurious times, but eat to live.

The Third said, That fasting is as contrary to the health of the body as conducive to that of the mind. The best temper, which is hot and moist, is an enemy to the souls operations, which require a temper cold and dry; which is acquir'd by fasting: hence choler, being hot and dry, gives dexterity and vivacity; blood, hot and moist, renders men foolish and stupid; and the cold and dry melancholy humour is the cause of prudence. But this is to be understood of fasting, whereby less food is taken than nature is able to assimilate, not of that which observes a mediocrity, always commendable, and good for health. Moreover, the right end of fasting is to afflict and macerate that body by abstaining from the aliments which it naturally desires. But as in drinking and eating, so in abstinence from either there is no certain rule; but regard must be had to the nature of the aliments, some of which are more nutritive than others, to that of the body, to the season, custom, exercises, and other circumstances; so they who eat plentifully of ill-nourishing



nourishing meats, or whose stomachs and livers are very large and hot, or who are accusom'd to eat much, will fast longer than those that eat little, but of good juice, or who have not much heat, and use but little exercise. Growing persons, as children, though plentiful feeders, yet oftentimes will fast more than those that eat less. In Winter and Spring, when the bowels are hotter, and sleep longer, fasting is more insupportable, because the natural heat being now stronger than in Summer and Autumn, consumes more nourishment. Wherefore, only discretion can prescribe rules for fasting. If it be for health, so much must be given Nature as she requires, and no more; the first precept of *Hippocrates* for health, being, Never to satiate one's self with food. If 'tis intended to purge the soul, then 'tis requisite to deny something to nature; the sucking which is felt in the stomach serving to admonish reason of the right use of abstinence. For temperance must not be turn'd into murder, and fasting only macerate, not destroy the body.

The Fourth said, That by fasting *Socrates* preserv'd himself from the Plague, against which we are erroneously taught to make repletion an Antidote: when 'tis manifest man's fasting spittle is found to be an enemy to poysons, to kill Vipers, and mortifie Quick-silver. Moreover, we may impute the false consequence which is drawn from the true Aphorisme of *Hippocrates* (That Eunuchs, Women and Children, never have the Gout) and the production of so many modern diseases to gluttony, and the frequency of meals; our fore-fathers being so well satisfi'd with one, that *Plato* wonder'd how the Sicilians could eat twice a day.

## CONFERENCE LXX.

### I. Of Climacterical Years. II. Of Shame.

**M**AN's life is a Comedy, whereof the Theatre or Stage is the World, Men the Actors, and God the Moderator, who ends the Play, and draws the Curtain when it seems good to him. When 'tis play'd to the end, it hath five Acts, Infancy or Childhood, Adolescence, Virility, or Manhood, consisting of middle age, and old age; each of 14 years, which multiply'd by 5 make 70 years, the term assign'd to humane life by the Royal Prophet. These acts are divided into two Scenes, of as many septenaries, in either of which considerable alterations both in body, goods and mind, also, are observ'd to come to pass. For seeing many persons incur great accidents at one certain number of years rather than another; and if they scape death, fall again into other dangers at certain times, and so from one degree to another, till they be come to the last step of the Ladder;

I.  
Of Climacterical Years.



der which is call'd *Climax* by the *Greeks*; hence the name of Climacterical comes to be given to the years at which these changes are observ'd. The most general opinion refers them to that number of seven; though some have attributed them to the ninth, others, to every other second year; but especially to the product of the one multiply'd by the other, which is sixty three, compos'd of nine times seven, or seven times nine; and therefore the most dangerous. For seven and nine, as *Fermicus Maternus* saith, being very pernicious of themselves, their malignity is conjoyn'd in that number of sixty three, call'd upon this account the grand Climacterical; as 7, 14, 21, 28, 35, 41, 49. (very considerable amongst them for being the square of seven) and 56. are call'd less Climactericals; but 126. the greatest Climacterical of all, because it contains the grand one twice, being compos'd of eighteen Septenaries. Now all these Climactericals are call'd *Hebdomaticks*, because they go upon seven, as those which are counted by nine are call'd *Enneaticks*, amongst which the less are 9, 18, 27, 36, 45, and 54, the grand one is again 63, made also of nine multiply'd by seven; the rest are 72, 81, (very notable too, for being the square of nine) 90, 99, and so to the greatest Climacterical 126, made of twice nine Septenaries. Amongst all which years 'tis further observ'd, that those are the most dangerous which ascend either by three weeks, or three novenaries of years, as, 21, 42, 63, in the *Hebdomaticks*; and 27, 54, 81, in the *Enneaticks*.

The Second said, That as the Septenary is considerable, so is that of Nine, for the number of the Hierarchies and Celestial Spheres, together with the common number of moneths of womens pregnancy; the time between the conception and the birth having a great resemblance with the remainder of Man's Life. Likewise the Ternary, proper to the Deity, being multiply'd by it self, must contain what ever wonder and efficacy there can be found in numbers; since it belongs to innumerable things; and nothing can be consider'd but with its three dimensions, and its three parts, beginning, middle, and end; past, present, and future; hence the assigning of three faces to *Janus*, three names and three powers to the Moon, according to its own, that of *Diana*, and that of *Hecate*; together with the fiction of three Graces. In brief, as the three greatest changes came to pass in each of the three times of the world, before the Law, under the Law, and after the Law; so it seems just that this ternary number divide the actions of the less world, as it hath done of the great.

The Third said, That he accounted it more reasonable to make this division by the quaternary number, comprehended in the ineffable name of four Letters, the Elements and Humours; to the contract or amity of which we owe our health, our diseases, death, and all the accidents of our lives. And the slowest motion of the dullest and most malignant of these humours  
is



is made in four dayes, the reduplication whereof hath given ground to the error which attributes the Crises and indications of diseases to other numbers. The fourth day is acknowledg'd the first of Natures motion, and serves for a measure and foundation of all others. The Crises of diseases are unanimously attributed to the Moon, which hath but four quarters, distinguish'd by as many faces, which being denominated from the quaternary, argue its power over that Planet; and consequently, over every thing that depends upon it. And as there are four noble parts in Man, (comprehending, with *Galen*, those which preserve the species) so there are four in the world, East, West, North, and South; four parts of the earth, *Europe*, *Asia*, *Africa*, and *America*; and four Monarchies. But the considerableness of this number appears, in that our Lord having been ask'd five questions, namely, of the time of his Death, his Ascension, the Calling of the *Gentiles*, and the destruction of *Jerusalem*, they were accomplish'd in the number of four times ten. For he continu'd dead 40 hours, he ascended into Heaven at the end of 40 dayes, the vocation of the *Gentiles* typifi'd by the vision of unclean beasts, offer'd by the Angel to Saint *Peter* to eat, was at the end of 40 moneths, which are about 3 years and a half, (so long also as Antichrist is to continue) and the destruction of *Jerusalem* came to pass at the end of 40 years. Whence some suspect that the end of the world (which was another question made to him) will probably happen after 40 times 40 years; which added to the preceding would fall about the year 1640. Moreover, the quaternary is not onely a square number, but causing all others to be denominated such; the cause of the change which happens in this number, is, for that a Cube cannot be vari'd and mov'd but with difficulty; so that great causes are requisite to produce those changes, which producing great effects, become more sensible and remarkable then the ordinary ones, which more easily cause variation in other numbers remote from the cubick figure.

The Fourth said, That the Prince of Physitians having affirm'd that the Septenary is the dispenser of life, and author of all its changes, seven must be the true Climacterical. For in seven hours the Geniture receives its first disposition to conception; in seven dayes it is coagulated; in seven weeks it is distinguish'd into members. The Infant cannot come forth alive sooner then the seventh moneth, and anciently it was not nam'd till after seven dayes; being not accounted fully to have life till it had attained that periodical day. The Teeth spring out at the seventh moneth, they shed and are renew'd in the seventh year, at which time the Child begins to speak articulately, and to be capable of Discipline. At twice seven years it is *pubes*. At twenty one the beard sprouts forth. At twenty eight growing ceases. At thirty five a Man is fit for marriage and the warrs. At forty two he is wife, or never. At 49 he is in his *Apogee*, or highest pitch; after which



which he grows old, and changes alwayes by Septenaries till he have accomplish'd the years of his life; which *Hippocrates*, for this reason, distributes into seven Ages. The virtue of this Number appears likewise in divine things; God having sanctifi'd the seventh day by his own rest and ours, and all Nations measuring their time by weeks. But 'tis not without mystery, that *Enoch* the seventh after *Adam*, was translated into Heaven; that Jesus Christ is the seventy seventh in a direct line from the first Man; that he spoke seven times upon the Cross, on which he was seven hours; that he appear'd seven times; and after seven times seven dayes sent the Holy Ghost. That in the Lords prayer there are seven Petitions, contain'd in seven times seven words. The Apostles chose seven Deacons. All the mysteries of the *Apocalypse* are within this number; mention being there made of seven seals of the Book, of seven horns of the Lamb, and seven eyes which are the seven Spirits of God sent throughout all the earth, of the seven heads and seven questions of the Dragon; of the seven heads of the Woman, which are seven hills; of seven Kings, seven Angels, seven Trumpets, seven vials, seven plagues. The Scripture makes mention of seven resurrections to that of our Saviours. The 1. of the Widows Son of *Sarepta*, by *Elias*. The 2. of the *Shunamite's* Son, by *Elisba*. The 3. of the Soldier who touch'd the bones of that Prophet. The 4. of the Daughter of the Ruler of the Synagogue. The 5. of the Widows Son of *Naim*. The 6. of *Lazarus*. And the 7. of our Lord. The *Rabbins* say that God employ'd the power of this Number to make *Samuel* so great as he was; his name answering in value of the Letters to the Hebrew word which signifies seven; whence *Hannah* his Mother, in her thanks to God, saith, *That the barren had brought forth seven*. *Solomon* spent seven years in building Gods Temple. *Jacob* serv'd seven years for *Leah*, and as many for *Rachel*. The wall of *Jericho* fell down at the sound of *Joshuah's* seven Trumpets, after the *Israelites* had gone seven times about it on the seventh day. *Nabuchadonosor* did penance for his pride seven years amongst the beasts. Moreover, there are seven Penitential Psalms. The *Nile* and the *Danow* have seven mouths. There are seven hills at *Rome*, *Prague*, and *Constantinople*. *Noah* entred into the Ark with seven persons, and seven pairs of all clean Animals. After seven dayes the waters fell from Heaven during seven times seven dayes. On the seventh moneth the Ark rested upon the Mountain of *Ararat*. The *Ecclesiastes* limits mourning to seven dayes. There were seven years of plenty, and as many of famine, in *Egypt*. There were seven Lamps in the Tabernacle, typifying seven gifts of the Spirit. The *Jews* ate unleavened bread seven dayes; and as many celebrated the Feast of Tabernacles. They let their land rest every seventh year, and after seven times seven had their Jubilee. The strength of *Sampson* lay in seven locks of his Hair. There are seven Sacraments in the Church, as in Heaven seven Planets,  
seven



seven Pleiades, seven Stars in the two Bears. The Periodical course of the Moon is made in four times seven days, at each of which septenaries, it changes its face. In brief, there were seven miracles of the World, and seven Sages of *Greece*. There are seven Electors, seven liberal Arts, seven pairs of Nerves, seven Orifices serving for gates to the Senses : Natural sleep is limited to seven hours ; and this Number is by some justly esteem'd the knot, or principal band of all things, and the symbol of Nature.

The Fifth said, It was not without cause that *Augustus* was so extreamly fearful of the Climactericals, that when he had pass'd his 63<sup>d</sup> year, he writ in great joy to all his friends ; but he dy'd in the second Climacterick after, his 77<sup>th</sup> year, consisting of eleven septenaries, which was also fatal to *Tiberius*, *Severus*, *T. Livius*, *Empedocles*, *S. Augustin*, *Bessarion* ; as the sixty third was to *Aristotle*, *Cicero* (who also was banish'd in his Climacterick of 49) *Demosthenes*, *Trajan*, *Adrian*, *Constantine*, *S. Bernard*, the blessed Virgin, and many others. And the next Climacterick of 70, to three of the Sages of *Greece*, to *Marinus*, *Vespasian*, *Antoninus*, *Golienus*, *David*, who was also driven from his Kingdom by his Son, at his sixty third year ; and committed his adultery and homicide at his forty ninth ; both climactericals. And as much might be observ'd of the fates and actions of other men, were regard had of them. Our first Father dy'd at the age of 931 years, which was climacterical to him, because it contains in it self seven times 133. *Lamech* dy'd at 777 years, climacterical likewise, as *Abraham* dy'd at 175, which contains 25 times seven. *Jacob* at 147, consisting of 21 times seven ; *Judas* at 119, made of 17 times seven ; the power of which Climactericals many make to extend to the duration of States, which *Plato* conceiv'd not to be much above 70 weeks of years.

The Sixth said, That regular changes proceeding necessarily from a regular cause, and no motion being exactly regular in all nature but that of the Heavens ; supposing there be climacterical years, and not so many deaths and remarkable accidents in all the other numbers of days, moneths and years, had they been all as carefully observ'd as some of them have been) their power of alteration cannot but be ascrib'd to the celestial bodies. That which befalls us every seventh year arises hence ; as every Planet rules its hour, so it makes every day, moneth, and year septenary ; beginning by *Saturn*, and ending at the Moon, which governs the seventh, and therein causes all mutations, which acquire malignity by the approach of *Saturn* presiding again over the eighth ; which is the cause why births in the eighth moneth are seldom vital.

Upon the second Point, it was said, That the Passions consider evil and good not only absolutely, but also under certain differences. II. Of Shame.



differences. Desire hath regard to absent good, not in general, but in particular; sometimes under the respect of Riches, and then 'tis call'd Covetousness; sometimes of Honour, and then 'tis call'd Ambition; sometimes of Beauties, and then 'tis an amorous inclination. So grief looks upon present evil; if it be in another, it causes *compassion* in us; if in our selves, and apprehended prejudicial to our honour, it causes *shame*, which is a grief for an evil which we judge brings ignominy to us; a grief so much the greater, in that no offence goes more to the quick than that which touches our reputation. It occasion'd the death of a *Sophist*, because he could not answer a question; and of *Homer*, because he could not resolve the riddle of the Fishers; and of others also, upon their having been non-plus'd in publick. For as nothing is more honorable then vertue and knowledge; so nothing is so ignominious as ignorance and vice, nor (consequently) that makes us so much asham'd; being reproaches of our falling short of our end, (which is, to understand and to will) and so of being less then men; but (as *Plato* said) Monsters of nature. But amongst all the vices, Nature hath render'd none so shameful as that of lasciviousness, whereof not only the act, but also the gestures and signs cause shame. Hence an immodest or ambiguous word, and a fix'd look, make women and children blush, whom shame becomes very well, being the guard of chastity, and the colour of vertue; as it ill becomes old men, and persons confirm'd in vertue, who ought not to commit any thing whereof they may be asham'd.

The Second said, That shame is either before vice and the infamy which follows it, or after both. In the first sence, shame is a fear of dishonour. In the second, 'tis a grief for being fallen thereinto. Neither of the two is ever without love of honesty, but lies between the two extreams, or sottish and rustick bashfulness on the one side, and impudence on the other. The former is found in those who are asham'd of vertue, or cannot deny any thing, although it be contrary to honesty, good manners, and their own will; or in such who cannot look a man in the face, which although frequently an obstacle to brave actions, yet is a common token of a good soul, rather inclin'd to honesty then to vice; like Edler and other wild herbs, which being good for nothing, and hindring the growth of others, are yet signs of a good soil. On the contrary, impudence is the symptome of a soul extreamly deprav'd; the defect of inward grief, which comes from the perversion of the Intellect, and the loss of Conscience, rendring the maladies of the soul incurable, as insensibility makes those of the body desperate. But modesty and true shame fears true dishonours, and is griev'd for them; having this of vertue, which the greater it is, the more it fears things greatly formidable and infamous, such as vice, and its concomitant, ignominy, are: but not much other things, which depend only on the imagination, and are not any way



way dishonest of themselves ; in which 'tis poorness of mind to blush. Thus *S. Paul* saith he was not asham'd of the Gospel. And our Lord, that they who shall be asham'd of him before men, he will deny them before his Father. For, to speak truth, we ought not to be asham'd of any thing but vice and its effects. Before sin, our first Parents knew not what it was to be asham'd ; but after it they were asham'd of their nakedness, the same sense whereof remains to all their posterity.

The Third said, As some things are of themselves shameful, because they are vicious ; so some are not shameful saving at certain times and places, to which the customs of each Country ; for the most part, give Law : others are always so, although of themselves lawful, and far from being vicious ; as those things which civility and honesty forbid to do publickly ; whence *Dio- genes* merited the name of Dog for transgressing those laws of seemliness. For as honour is drawn not only from vertue, but from many other circumstances, which for the most part depend upon the opinion of men who dispose of this honour, so doth dishonour and the shame which follows it.

The Fourth said, That shame is not a passion (as neither compassion nor emulation) because it hath no vertue which regulates its disorders ; much less a vertue, not being firm, and constant, but a simple motion to good, and a slight impression of honesty in the will and affections, produc'd either by nature or custom, and not yet so firmly rooted as vertue ; whence it is very mutable and incertain. For we are asham'd of being too tall or too low, commended or blam'd, yea we blush no less for defects which cannot be imputed to us, as mean extraction, or some corporal imperfection which we cannot mend, then we do for being found lyars or surpriz'd in some other fault. To which inconstancy is the agitation of the blood and spirits to be referr'd, whose tincture diffus'd in the face betrays our dissimulation in spite of us.

## CONFERENCE LXXI.

### I. *Why motion produces heat.* II. *Of Chastity.*

**L**ocal motion is not only the most common, but likewise the most noble of all, since 'tis not found in animals till they have acquir'd their perfection. Besides, it produces heat, the noblest and most active of all qualities ; upon this account Physicians enjoyn exercise to discusse cold and phlegmatick humours ; because animal motion cannot be perform'd without spirits, and these being of an igneous nature calefie all the parts towards which they flow. But being motion produces heat in life-less things

I.  
*Why motion  
produces  
heat.*



things too, 'tis harder to render a reason of this effect in them than in animals. Thus Arrows have been seen to become fir'd by the swiftness of their flight. Millers turn part of their water upon the axle-tree of their wheel, otherwise it would be on fire; and Waggoners, as well for this purpose as to facilitate their turning, grease their wheels, thereby to remedy the dryness of the axle-tree which disposes the same to ignition. Those that hold it for a Principle, That motion heats, account is as absurd to inquire the cause thereof, as to ask why fire do's so. But without ground, since every motion heats not; that of inanimate bodies if slow, produces no heat, but only when it is swift: 'tis requisite too that the bodies be solid; otherwise we see motion cools water and air, and hinders their corruption, which proceeds from heat. This argues that it cannot be a principle; for a principle must hold good in all subjects, and be such as no instance can be brought against it. Such heat therefore comes from the attrition of the air, which being raref'd beyond what its nature permits, waxes hot, and sometimes is turn'd into fire, wherewith it symbolizes upon the account of its heat; as, on the contrary, when the same air is too much condens'd, 'tis resolv'd into water, wherewith also it symbolizes by its moisture. For as there are terms of quantity in all mix'd bodies; so in all simple bodies there are terms of rarity and density, beyond which the Element cannot preserve it self, without admitting vacuity, when it is more rare than its matter can endure; or without penetration of dimension, when it hath more matter than it needeth.

The Second said, That to ascribe that heat caus'd by motion to the air inflam'd and turn'd into fire by attrition and attenuation of its parts, is to explicate a manifest thing by one more obscure, and whereupon all are not agreed; such is the transmutation of one element into another. 'Tis Therefore more probable that this heat is not produc'd anew, but is the same which is in all mix'd bodies, wherein there is an elementary fire; which being bur'd, and (as 'twere) intangled in the bonds of the other Elements, appears not unless it be excited by motion. As in putrefaction the same heat being attracted by the outward heat of the air, becomes perceptible by the sense. And as those that have drawn a Landkip in distemper upon a table of oyl, coming to wash the table, make the first draught appear which before was hid; or as the earth of a Mine which contains Gold or Silver, being wash'd, exhibites these Metals visible, but produces them not anew, because they were there before: so motion do's not make, but discover heat, introducing a disposition in the subject by friction, rarefying and drying the surfaces of two contiguous bodies; which two qualities being proper to receive the impression of fire, are also more so to make that appear which is in all bodies not only potentially, but likewise actually. For if 'twere the air included between two bodies rub'd and mov'd  
with



with violence, it would follow that every sort of body would be apt to produce fire, and especially the most aerious, as being most inflammable. Moreover, nothing hindring but that two Spheres may be so contiguous, as the Celestial are, that there can be no air between them, yet they might nevertheless be mov'd and heated, yea much more then if there were air interpos'd between them.

The Third said, As a form cannot be receiv'd into any subject without previous dispositions, so when they are present they suddenly snatch the form to themselves. Those of fire are rarity, lightness and dryness; of which the more bodies partake, the more they will be susceptible of the nature of fire. Therefore what is capable of being heated by motion must be dry not moist; whence fire is never produced by water, any more then of air agitated, by reason of their excessive humidity, perfectly contrary to the dryness of fire. But that which is extreemly dry is half fire, needing no more but to become hot, as happens necessarily when it is rarefi'd and attenuated by motion, and consequently inflam'd; every substance extreemly tenuious and dry being igneous, since in the order of nature all matter necessarily receives the form whereof it hath all the dispositions. For there being a separation and divulsion of parts made in every sort of motion, as is seen in water when it falls from on high, it follows that they are render'd more rare, and capable of being converted into fire.

The Fourth said, That motion, rarity, and heat ordinarily follow, and are the causes one of another. Thus the Heavens by their rapid motion excite heat in all sublunary bodies; and this heat, as 'tis its property, opening the parts, rarefies the whole. Water receiving the rayes of the Sun is mov'd and agitated by them; this motion produces rarity; this, heat; which makes the subtilest parts ascend upwards: as, on the contrary, heat being the most active quality, is the cause of motion; this, of rarity, by collision attenuating the mov'd parts. So that motion is not more the cause of heat, then this is of motion.

The Fifth said, That heat and fire (which is only an excess of heat) are produc'd four ways; by propagation, union, putrefaction, and motion. In the first way, one way generates another fire; a thing common to it with all other bodies in nature, which is so fruitful that even the least things produce their like. In the second manner, when the Sun-beams are reflected by hollow glasses, they burn in the point of union, provided the matter be not white, because whitenesse takes away the reason upon which they burn, which is their uniting; whereas white disunites and disgregates the rayes. To which manner that of antiperistasis is also to be referr'd, when external cold causes such a union of the degrees of heat, that it becomes inflam'd. The third cause of heat is putrefaction proceeding from disunion of the Elements; amongst which fire being the most active becomes  
also



becomes also more sensible to us. The last is motion, by which bodies rub'd or clash'd one against another, take fire by reason of the Sulphur contain'd in them, which alone is inflammable; as we see Marble and Free-stone yield not fire as Flints do, whose smell after the blow seems sulphureous. For if only the air be fir'd, whence comes it, that in striking the steel the sparkles of fire fall downwards, contrary to the nature of fire, which ascends? besides, the air would be turn'd into flames, not into sparkles, and two stones rub'd one against the other would cause as much fire as steel and the flint, or other stones, out of whose substance these igneous particles are struck. Whence, according to their differences, they make different sparkles; If the stones be hard, and struck strongly, they render a sprightly fire; if soft, they either render none at all, or such as is less vigorous. Moreover, the observations of fire issuing forth upon the rubbing of a Lyon's bones, as also Laurel and Ivy, and Crystal with Chalcedon; and that which comes from stroking the back of a Cat in the dark, and from the casting a drop of rectifi'd oyl of Vitriol into cold water, evidence that this fire is produc'd out of the bosom of the matter which is more dispos'd thereunto than any other, not from the encompassing air. But that which serves most to shew that 'tis from the matter this fire of motion comes, is the duration of the Heavens, which being in all probability solid, would have been set on fire, were it not that they are not of a combustible matter, nor apt to conceive fire; for how little soever that heat were, there would be more neer the Sphere of the Moon than at the Centre of the Earth; and nevertheless the air is frozen while heat causes corruptions and generations upon the earth, and at the centre of it; and this heat having been always encreasing, as is that of the motion, would be insupportable.

II.  
*Of Chastity.*

Upon the second Point, it was said, That Reason regulates the inclinations of the appetite by the vertues, amongst which temperance serves to moderate that of eating by abstinence; and of drinking, by sobriety; as also the concupiscence of the flesh by chastity, which is more excellent then the two former, in that its business lies with more powerful adversaries which assail it without as well as within, by so many avenues as there are senses; amongst which the hearing and sight receiving the poyson of glances, and words, cause chastity to stagger and languish; but it receives the deadly blow when the touch surrenders it self to the enchantment of kisses, and the other delights which follow them. Moreover, the necessity of natural actions being the standard of pleasure, and generation which concerns the general being more necessary then nutrition which relates only to the particular, it hath also more pleasure; and, consequently, being more hard to withstand, chastity which surmounts it, not only deserves Palmes and Triumphs in the other world,



world, but also in this hath been rewarded by God with the gift of Prophecy in the Sibyls, and is honour'd by all, even the most wicked for its rarity; which made the Poet say, that there was none in his time chaste but she that had not been tempted. Now Chastity is of three sorts, Virgineal, Conjugal, and that of Widows; to which the Fathers attribute what is said of the grains of Corn, which brought forth, one a hundred; other, thirty; and other, sixty. For Virgineal Chastity, in either sex, consisting in integrity of body, and purity of soul, and in a firm purpose to abstain from all sort of carnal pleasures, the better to attend divine service, is more worthy than the other two, and prefer'd before any other condition by *S. Paul*, who counsels every one to desire to be like him in this point. Hence the Church hath chosen it, and is so immutably affected to it, to the end souls freed from worldly care might be more at leisure for divine things, from which Matrimony extreamly diverts. The chastity of Widows hath, for pattern, the Turtle and the Raven, who having lost their mates live nine ages of men without coupling with others; and the Apostle saith, Widows in deed are worthy of double honour. The Conjugal hath also made *Penelope* renown'd, and hath for example the Etnæan fish, of which the male and female never part.

The Second said, Virgineal Chastity is not absolutely virtuous of itself, having been practis'd by Pagans and Idolaters, who devoted themselves to their false gods, and being found in children newly born: which cannot be said of virtues, which are acquir'd by precepts and good manners; not by nature. Moreover, it may be lost without sin, as in Virgins violated, or those that are married; yea sometimes with merit, as when *Hosea* the Prophet took a Harlot to wife by God's express command. And being once lost, it cannot be repair'd by repentance as other virtues may. Whence *S. Jerome* writing to *Eustochium*, saith, that God who is able to do all things, yet cannot restore virginity. 'Tis therefore commendable so far as it is referr'd to God: in which case 'tis a most admirable thing, and the more because 'tis above nature, which by Marriage peoples the Earth, but Virginity peoples Heaven, where there shall be no marrying, but we shall be as the Angels of God, who being a pure Spirit, loves purity above all things.

The Third said, That Virginity is wholly contrary to the nature of man, who desires nothing so much as immortality; which being not attainable in his own person he seeks in his successors, who are part of himself. Yea it seems to have somewhat of insensibility, the vicious excess of temperance, since it wholly abstains from all pleasures; some of which are lawful. Therefore *Plato* sacrific'd to Nature, as if to make her satisfaction for his having continu'd a virgin all his life; and the Romans laid great fines upon such as would not marry; as on the other side, they granted immunities to those that brought children  
into



into the world ; whence remains at this day the right of three, four and five children , observ'd still amongst us, those that have five children being exempted from Wardships. Yea, among the Jews it could not be without reproach, since sterility was ignominious among them, and was accounted the greatest curse. Moreover, Marriage not only supplies Labourers, Artisans, Souldiers and Citizens to the State, but Kings and Princes to the People, Prelates and Pastors to the Church, and a Nursery to Paradise, which would not be peopled with Virgins, did not the married give them being. Whence *S. Austin* justly makes a Question, Who merited most before God, *Abraham* in Marriage, or *S. John Baptist* in the Virgineal State.

The Fourth said, That being things are term'd vertuous when they are according to right reason, which requires that we make use of means proportionately to their end ; therefore Virginity is a virtue, and the more sublime in that it is in order to the most excellent end, namely, the contemplation of Divine Mysteries. For amongst the goods of men, some are external, as riches ; others of the body, as health ; others of the soul, amongst which those of the contemplative life are more excellent then those of the active. As therefore 'tis according to right reason, that external goods are made subservient to those of the body, and these to the goods of the soul ; so is the denying the pleasures of the body the better to intend the actions of the contemplative life : as Virginity do's, which freeing us from carnal thoughts affords us more convenience to mind the things of God, and to be pure in body and spirit. 'Tis therefore the end which makes Virginity to be vertuous. Whence, those Roman Vestals, and the Brachmans among the Indians, who abstain'd wholly from Marriage, nevertheless deserve the name of Virgins. And *Spurina*, mention'd by *Valerius Maximus*, so chaste that perceiving himself as much lov'd by the Tuscan Ladies, as he was hated by their Husbands, disfigur'd his face with voluntary wounds, had indeed some shadow, but not the body of this virtue. The invention of *Gaila* and *Papa*, Daughters of *Gisuphe* Duke of *Friuli*, was much more ingenious ; who at the sacking of their City, beholding the chastity of their sex prostituted to the lust of the Souldiers, fill'd their laps with stinking flesh, whose bad smell kept those from them who would have attempted their honour.

The fifth said, That the excellence of Virgineal Chastity is such, that it hath no vitious excess ; for the more we abstain from pleasures, the more pure we are. And as it is blemish'd many wayes, so it is preserv'd by many others. Amongst which, is first, Employment or Business ; whence *Cupid*, in *Lucian*, excuses himself to his Mother, that he could not wound *Minerva*, because he never found her idle. Modesty is also the Guardian of it, as to appear seldome in publick ; whence the *Hebrews* call'd their Virgins



Virgins *Almach*, which signifies Recluses. Moreover, dishonest gestures, words, and looks, are to be avoided. And amongst corporeal means, Abstinence and Maceration of the body, are very effectual; as amongst Aliments such as are cold, as *Nenu-phar*, or Water-lilly, (call'd therefore *Nymphæa*) and Lettice, which the *Pythagoreans* for this reason *Eunuch*, and under which upon the same account the Poëts feign *Venus* to have hid *Adonis*. As likewise the leaves of Willows bruised, the ashes of *Tamarisk*, and the flowers of *Agnus Castus*, which is a sort of Ozier, so call'd by the *Greeks*, because the *Athenian* Ladies lay upon them during the festivals of *Ceres*, to repress the ardour of Love, whereof, they say, such are not sensible as have drunk wine wherein the fish nam'd *Trigla* is suffocated, or who have eaten Rue. But because these remedies are not infallible, *Origen* took another course, making himself actually an Eunuch, for fear of losing that rare treasure of Virginity, whose loss is both inestimable and irreparable.

## CONFERENCE LXXII.

I. Of Thunder. II. Which of all the Arts  
is the most necessary.

AS Water and Earth are the grossest of the Elements, so they receive most sensibly the actions of the Celestial Bodies, chiefly the Sun's heat; which exhaling and drawing up their purer parts, vapours from the Water, and exhalations from the Earth, forms meteors of them. And as the cold and moist vapours make tempests, dew, and frost, in the lower Region; and in the middle, clouds, rain, hail, snow. Exhalations, if fat and unctuous, cause Comets in the higher Region, and in the lower the two *Ignes Fatui*; if dry and subtile, they make Earth-quakes in the bowels of the Earth; in its surface, winds and tempests; in the middle Region of the Air, Lightning, Fulgur, or the Thunder-bolts and Thunder. For these three commonly follow and produce one another. Lightning is the coruscation or flashing of the matter inflam'd. And though produc'd by Thunder, yet is sooner perceiv'd than the other heard; because the Sight is quicker than the Hearing, by reason its object, the visible species, are mov'd in an instant; but sound successively, because of the resistance of the Air, its *medium*. Thunder is the noise excited by the shock and shattering of the cloud by the inclos'd exhalation; whence rain commonly follows it. Fulgur is the exhalation inflam'd, which impetuously breaks out at the sides of the cloud, wherein it is oftentimes turn'd into a stone of the shape of a wedge; the celestial heat then working the

I.  
Of Thunder.



same effect in the cavities of the cloud that our common fire doth in crucibles; in which equal portions of Sulphur, Tartara, and Antimony inflam'd, turn into a very hard stone, of the colour of the Thunder-bolt, call'd *Regulus Antimonii*.

The Second said, As fire is sometimes produc'd in the Air without noise, and noise without fire; so a great fire is made there with little noise, as when what they call a Falling Star passes through a moist cloud, in which it makes a hissing like that of hot Iron in cold water, whence Winds proceed; and sometimes a great noise with little fire; as when an Exhalation inflam'd hollows and breaks the cloud which encloses it, or else impressing a violent and rapid motion upon it, makes it clash impetuously against other clouds. For impetuosity supplies for hardness, as is seen in Air which whistles when beaten by Winds; there being some things which tension renders hard, as Wind included in a foot-ball. And what is reported of the Cataracts of *Nile*, whose waters make so vehement a noise, that it renders the people thereabouts deaf, is a sufficient evidence that two fluid bodies clashing violently together, make as great a sound as two solid bodies mov'd with less violence.

The Third said, That what is done below being the figure of what is done on high, the one may be clearly explicated by the other. Wherefore as Exhalation with vapor makes metals in the entrails of the Earth; so in the Air it makes Thunder, whither they ascend together, the vapor being blended with the Exhalation; or severally, this latter being set on fire in the cold and vaporous cloud; or being no longer containable there through its great rarity, encounter'd by the coldness of the cloud and the Air, it seeks some out-let; which not finding, 'tis necessitated to hollow the bellow the belly of the cloud which obstructed it. This rarity proceeds from its heat and dryness, which are commonly turn'd into fire by the sole motion of the Exhalation, or by the rayes of the Sun, or of some other Stars reflected by the smooth surface of an opposite cloud; in the same manner as Burning-glasses set on fire such things as are plac'd at some convenient distance. Which should be thought no more strange then mock-suns and mock-moons, which are made in the same manner, but in a flat or plain cloud, not parabolical, such as the figure of Burning-glasses must be. Moreover, fire may be excited by the *Antiperistasis* of the vehement cold in the middle Region of the Air, which causes the degrees of heat to unite, (as those of other qualities strengthen one another in an enemy country) and become flame. Hence Thunders are more frequent in Southern then in Northern Countries, in hot seasons then in Winter, wherein the cold closing the pores of the Earth, hinders the free issue of the Exhalations, and the middle Region of the Air is found less cold. But the most sensible example of Thunder is that of our Guns; the powder, being so suddenly inflam'd that it cannot reside in the barrel, where it takes up a thousand



thousand times more room then it did whilst it remain'd in its terrene nature, according to the decuple proportion of the Elements, violently breaks forth, and carries with it what ever resists it, breaking the Gun (unless the mouth be open) though much stronger then a cloud, whose spissitude nevertheless supplies for its rarity.

The Fourth said, That the Nature of Thunder and Thunderbolts is so occult that all antiquity call'd them the weapons of *Jupiter* which he discharg'd upon the wicked, as is testifi'd by their fables of the Giants, *Salmonius*, *Phaeton*, and some others. Nor is there any so hardned in wickedness, but trembles at the cracking of Thunder and Thunderbolts, which *Socrates*, in *Xenophon*, calls the Invisible Ministers of God. And one Emperor acknowledg'd himself no God, by going to hide himself in a cave while it thunder'd, because Thunderbolts are conceiv'd not to enter the Earth above five foot deep. Others have thought that there is something supernatural in it, and that Demons have commonly a hand in it; because its effects being unlike those of corporeal Agents seem to be produc'd by spirits, who are able to move what ever there is in Nature; and this the more easily, being not ty'd to the conditions of the matter, but mov'd in an instant, and penetrating all bodies whatever. For Thunder hath kill'd many who had no appearance of hurt upon them; the Hair of some hath been taken off without other inconvenience; it hath consum'd the Tongues of some, or turn'd them downwards; it hath melted the money in the purse, and the sword in the scabbard, without other mischief; it sowres Wine in the vessel, spoils Eggs under a Hen, and makes Sheep abortive. Moreover, the Scripture tells us, that God hath many times us'd Thunder either to punish or terrifie men, as he did in *Aegypt* by the rod of *Moses*, who calls Thunderbolts God's swords, as *David* doth his Arrows, and the Thunder his voice. The Law was given to the *Israelites* with Thunders and Lightnings; and Saint *John* in his Revelation saith, that Thunders and Lightnings proceed from Gods Throne. Indeed nothing more visibly notifies his presence, power, and justice; yet alwayes accompany'd with Clemency; for he threatens by Lightning, and speaks by Thunder, before he strikes by the Thunder-bolt; and the rumbling of this Thunder menaces a whole Region, though commonly it carries the blow but upon one person, or oftentimes none at all.

The Fifth said, Fear (which not onely sometimes made the *Romans* worship Famine and the Fever, but makes it self an Idol in the Minds of the Ignorant) has perswaded men that there is something Divine in Thunder, because they dread the dismal effects of it and know not the cause, although it be as natural as that of all other Meteors. Hence some have had recourse to impertinent and superstitious remedies; as, to pronounce certain barbarous words, to carry certain figures or characters about



them, and (according to *Wierus*) to lay a Thunder-stone, call'd by the *Greeks*, *Cerannium*, between two Eggs upon a Table in the house which you would preserve, or hang an Egg lay'd on Ascension-day to the roof of the House; and such other absurd and prophane means. The Northern people were much more ridiculous; who, as *Olaus* reports, shot Arrows up to Heaven when it Thunder'd, thereby (as they said) to help their Gods who were assail'd by others. The *Thracians* fell a howling against Heaven, struck their shields with their swords, and rung all their bells; which latter is practis'd at this day, to the end the vehement agitation of the Air may divert the Thunder-bolt from the steeples, upon which, as upon all other high places, especially upon trees, it is wont to fall. 'Tis held also that strong smells have the same virtue; as amongst Animals, the Sea-calf and Hyæna, and amongst Plants, the Fig-tree and Lawrell, of which *Cæsar* commonly wore a wreath, rather for this purpose than to cover his bald head. But 'tis little probable what they relate of *Zoroaster* and *Numa*, as that they still'd Thunder when they pleas'd, and that *Tullus Hostilius* attempting to do the same was Thunder-struck.

## I I.

Which of all  
the Arts is  
the most ne-  
cessary.

Upon the Second Point it was said, That if we take the judgement of each Artist, there's none but thinks himself more necessary than his companion. Whence commonly there is contention for dignity among those that profess several Arts. Which made a Physitian tell his Patient, who complain'd that his Apothecary told him he needed a medicine, and his Chyrurgion that he wanted nothing but blood-letting; that if he took the advice of his Shoe-maker, 'twas requisite for him to have a pair of boots. And even a seller of matches finding himself in danger in a boat upon the *Seine*, embracing his merchandize, cry'd out, *Ville de Paris que tu perdes*; O *Paris*, what a losse wilt thou have! But to consider things in themselves, Agriculture (call'd by *Cicero* the most worthy employment of an ingenuous mind; by *Aristotle*, the justest manner of acquisition, and the Mother of all the Arts) seems to be most absolutely necessary. No private person, much less Republicks, ever thought of any thing so carefully as their provision, which is the foundation upon which all the other projects of Man depend; the hungry belly having no ears, and consequently, being incapable of discipline. And good Architects alwayes build the kitchen first. Our first Father exercis'd Tillage at his first going out of *Eden*; and 'twas from the plough that *Coriolanus*, *Seranus*, *Curius*, and *Cato*, and so many other great *Roman* Captains were taken. In brief, the styling of Earth Mans Mother and Nurse, argues that 'tis not less necessary to us than a Mother and Nurse to Children, and consequently, those that till it then Fathers.

The Second said, As the beauty of nature consists chiefly in the variety of Natural Agents, determin'd each to a particular work;



work; so that of a State appears principally in the multitude of Work-men and Artisans. And as the meanest of these Natural Agents, like small Simples, are more necessary, and have more virtue than the tallest Cedars and Cypresses; so amongst the Arts, the basest in appearance are the most noble and necessary, as Agriculture, and keeping of Sheep, which was exercis'd by *Apollo, Paris, Saul and David*. Whence the Greek Poet calls Kings, Pastors of the people; a name still retain'd by the Prelates of the Church; and *Plato* conceiv'd that the dæmons and happy spirits were sometimes Shepherds; and *Philo* the Jew saith, that the Pastoral Art was a prælude to Royalty, as that of hunting is the apprenticeship of war. Moreover, hunting, its neer sister, was much practis'd by the Persians and all warlike Nations; and *Xenophon* highly recommends it, but specially to Princes, in his institution of *Cyrus*; as *Julius Pollex* did to the Emperor *Commodus*, for an heroical recreation, serving to strengthen both body and mind, and rendring men vigilant, laborious and indefatigable.

The Third said, That Man, sutable to his three principal Organs, the Intellect, the Tongue and the Hand, spending his whole life in reasoning, speaking, or doing, he therefore needs three sorts of Arts to serve him for rules in all his operations. The first, to form his Reason, therefore call'd *Logick*. The second, to regulate his words, and is either *Grammar* which instructs him to speak rightly, or *Rhetorick* to speak handsomely, or *History* to relate well, or *Dialectick* to speak of every thing probably. The third comprehends all real Arts, whose number infinitely exceeds the two other; for Men speak and reason after the same manner, because they do it naturally; but they operate in several manners according to the several usages and Customs of people and places. Amongst these real Arts, some are necessary to life, as Agriculture, and keeping of Cattle, which supply us with Food and Raiment from the Earth and Animals. Others are useful thereunto, as the Art of building Houses, that of Taylors and Shoe-makers, and other manufactures which we cannot want without inconvenience. Others are for ornament, as Painting, Embroidery, Dancing. Others are onely for pleasure; as the Art of Cookery, perfuming, and all those which tickle the Ear by musical instruments. In brief, the scope of some is onely Truth, as the Art of measuring Heaven and the Stars, with some others, which as the most excellent, having Truth the divinest and noblest thing in the world for their object, so they are the least necessary; and therefore were invented last. For the most necessary Arts are the most ancient. The use of things (the measure of their necessity) having constrain'd Men to make but rude Arts at the first, which they afterwards polish'd and refin'd by their industry, which is continually adding to former inventions.

The Fourth said, Since Divine Authority hath commanded  
to



to honour Physick for its necessity, 'tis no longer lawful to prefer any other Art before it. Agriculture should in vain help the Earth's production of fruits, did not Physick by preserving and restoring health enable Man to enjoy the same, 'Tis not considerable what some alledge, That Physitians may be spar'd, because there were none in *Rome* for 600. together, after they had been expell'd from thence; since to be without Physitians, is not to be without Physick. For then every one was his own Physitian. As if the Magistrates be driven out of a State, it does not follow that Justice is driven out too; because others succeed into their places; and the greatest Thieves keep some form of justice and laws among themselves.

The Fifth said, That the onely means of keeping States being to get (since in matters of Oeconomy, the foundation of States, not to gain and advantage is to go behind-hand) Merchandize both in gross and retail being the surest and speediest means to enrich Cities, seems the most necessary of all Arts; besides, it maintains society amongst Men, who could not supply one another's needs, if there were not an Art of traffick by Exchange or sale, which makes but one City of the whole world, both old and new.

The Sixth said, That the Military Art being the sword and buckler of a State, is both the noblest and most necessary of all. 'Tis in vain that Men labour, travel, plead, traffick, or heal themselves, if the Souldier hinders not the Enemies invasion, and keep not the State in liberty, by securing it both from the disturbances of Rebels, and incursions of Forreiners. If one be the weakest, his plump and sound body being taken by Pirates will serve onely for the Galleyes of his conqueror. There remains nothing to the conquer'd but sorrow. Those goodly crops of Corn are for the Souldiers who are Masters of the campagne. War is the fair where wares are had best cheap; and in sack'd Cities commodities are taken without weighing, and Stuffs are not measur'd but with the Pike instead of the Ell; if any complain, there needs no more but to imitate *Brennus's* treating with the *Romans* besiedg'd in the Capitol, cast the sword into the balance, it will carry it. Wherefore being Master of all Arts, it is more necessary then they. For he that is strongest finds sufficient of every thing.

The Seventh said, As amongst the Arts, some have others subservient to them, as the *Ephippians* to the Military Art; Chyrurgery, Pharmacy, the Gymnastick, and all that relate to Health, to Medicine or Physick; Carpentry, Masonry, and others employ'd about building to Architecture; and these Master Arts are call'd Architectonical: So there is one above all these which is Policy, the Eye and Soul of the State, which governs all Arts, gives them their rewards, and punishes their defects; sets what price it pleases upon things; affords convenient place for the merit of every one, sends Armies into the field,

and



and calls them back according to the necessity of affairs; hath care of Piety and Justice, establishes Magistracy, appoints quarters to Souldiers, and gives free exercise to all other Arts. All which considerations and accounts argue it the most necessary of all.

## CONFERENCE LXXIII.

### I. Of the Earthquake. II. Of Envy.

**I.** Irregular motions are as strange as regular are agreeable; especially those of bodies destinated to rest, as the Earth is, <sup>I. Of the Earthquake.</sup> being the immoveable centre about which the whole fabrick of the world is turn'd. For though the whole Heaven cannot rest, any more then the whole Earth move, yet the parts of them may; the Scripture informing us, that *Joshuah* made the Sun stand still, that he might have time to pursue the *Amorites*; and every Age having experiences of Earthquakes. To which *Aristotle* ascribes the appearing of a new Island in the Pontick Sea, call'd *Heracilia*, and of another call'd *Sacrea*. Many Geographers affirm, that the Islands of *Rhodes* and *Delos* were produc'd by the like cause; and that *Sicily* sometimes joyn'd to *Italy*, was separated from it by an Earthquake; whence the place of separation is still call'd by the Greek word *Rhegium*, which signifies separation and fracture. *Pliny* affirms, that the Island of *Cyprus* was by this means divided from *Syria*, and *Eubæa* from *Bæotia*. Histories tell of some Mountains that have clash'd together, contrary to the Proverb, which saith, that they never meet; of Towns transported to some distance from their first situation, as hapned by an Earthquake in *Syria*, in the ninth year of *Constantinus Copronymus*; of others swallowed up, as sometimes the greatest part of the City of *Sparta*, upon which at the same time fell a part of Mount *Taygetus*, which completed its ruine; twenty thousand inhabitants of which City were also overwhelm'd by an other Earthquake, by the relation of *Diodorus*, about the 78. Olympiade. *Josephus* reports, that thirty thousand *Jews* were swallow'd up by another. And *Justin*, that when *Tigranes* King of *Armenia* became Master of *Syria*, there hapned so dreadful an Earthquake, that a hundred and thirty thousand *Syrians* perish'd by it. Four hundred years agoe twelve thousand houses were shaken down at *Lisbon*. *Italy* was much endamag'd in the year 1116, by one which lasted forty dayes; principally, *Tuscany*, *Puglia*, the Territory of *Venice*, and *Campagna*, where twelve Cities perish'd; and that of *Pompey* was swallow'd up in Winter, which season, neverthelesse, is accounted free from it. Four years agoe the City of *Naples* was horribly shaken, especially the borders of Mount *Visuvius*. The common



common opinion, refers these effects to a dry Exhalation, which makes the same concussion in the belly of the Earth as in that of a cloud, shattering many times both the one and the other, when it cannot otherwise get free from its confinement, how hard or dense soever the bodies be that inclose it.

The Second said, That the causes of Earthquakes are either Divine, or Astrological, or Physical. The first have no other foundation but the Will of God, who thereby oftentimes manifests to Men his justice and power, and sometimes contrary to the course of ordinary and natural causes. Such was that at the death of our Saviour, in the 18<sup>th</sup> year of *Tiberius*, which was universal, and wherewith twelve Cities of *Asia* perish'd; and that mention'd by *Sigonius*, hapning in the year 343. under *Constantine* the *Arrian* Emperor, whereby the City of *Neocæsaria* was wholly swallow'd up, except the Catholick Church and its Bishop. The Astrological causes are, if we may credit the professors of this Art, the malignant influences of *Jupiter* and *Mars* in the Houses of *Taurus*, *Virgo*, and *Cupricorn*. But as the first are too general, so these are very uncertain, being built for the most part, upon false principles; as also those which suppose the Earth a great Animal, whose tremors are made in the same manner as those which befall other Animals. Wherefore holding to the most perceptible causes, I conceive, with *Democritus*, that torrents of rain coming to fill the concavities of the Earth by their impetuousnesse drive out the other waters, and that upon their motion and swaying from one side to another, the Earth also reels this way, and by and by the other; or rather that these Torrents drive out the winds impetuously, as Air issues out of a bottle when it is filling; which wind repells and agitates the Earth till it find some issue; whence also come the sounds and lowings which accompany Earthquakes. As is seen in Hydraulick instruments, which by artificial mixing Air and Water when they are impell'd into pipes fit to receive the same, excite sounds like those emitted by the wind-pipe of Animals, agitated with the wind of their lungs, and moistned with the salivous liquor, or natural water.

The Third said, That he could not be of their mind, who, because water is found by digging to a good depth in the Earth, therefore interpret that place literally, where 'tis said, *That God hath founded the Earth upon the Water upon which it floats*; and that according to their agitation, the Earth is like a Ship which fluctuates in a tempestuous Sea, and lyes even and still in a calm; since if this were so, then the whole Earth should tremble at the same time, which is contrary to experience. The opinion of *Anaximenes*, is more probable, that as part of the Earth, upon a droughth after a wet season, cleaves and crackles, so the same happens to Regions and whole Countries.

The Fourth said, That if this opinion were true, then they would begin, increase, diminish and cease by degrees, nor would they



they last long. Yet 'tis observ'd, some have continu'd forty days, yea, six moneths, as that of *Constantinople*, under *Theodosius* the younger, and miraculously ceas'd upon the first singing of those words by all the people, *Sanctus, Sanctus, &c.* *Aristotle* also makes mention of some that lasted two years; the cause whereof depends either upon the quality or quantity of the Exhalations, which cannot all get forth but in a long time, or are not strong enough to break the gates of their prison.

The Fifth said, That to move the most ponderous Body, the Earth, requires the most active of all Agents, which is fire; whose centre the *Pythagoreans* therefore plac'd in the middle of the Earth; because the noblest Element deserves the noblest place, which is the middle, and for that 'tis necessary to the generations which are made there. Hence Maritime places, where most *Vulcano's* are observ'd, whose Fire is fed with the oylie and unctuous humours of the adjacent Sea, are more obnoxious to Earthquakes; and the last eruption of Mount *Vesuvius* was preceded by a horrible Earthquake. As likewise the Island *Sacrea*, above mention'd, being first lifted up with a great noise and concussion, open'd it self, and cast forth flame and ashes as far as the City *Lipara*, and some others of *Italy*. Now according to the different matter of these Fires, the concussions which they produce by attenuation of the inflam'd Air are different; if it be nitrous, they are very violent; because Salt Petre being very Dry is suddenly fir'd in all its parts; and being of a terrestrial nature takes up more room when inflam'd, then Sulphur which is fat and aerious, and consequently not so quickly inflammable in the whole, but only in its surface, by reason of its extreme humidity which checks the Fire; and when it is inflam'd it takes not up so much room, being of it self aerious, and consequently needing less space when it is rarifi'd to be converted into Fire, whence the tremors caus'd by it are less: But when the matter which feeds those Fires is bituminous, the tremors are moderate, because *Bitumen* is of a middle nature between the two former. Now because these materials when they begin to be inflam'd have not strength enough to make the Earth tremble, till their Fire be increas'd proportionately to the enormous weight of the load which they are to move; their first effect reaches no farther then to trouble and infect by their vapors the springs of Subterranean Waters, as most susceptible of impression. Hence, according to the different taste, smell, and consistence of the water of Fountains and Wells, some have fore-told Earthquakes; as *Apollonius* saith, that *Pherecides* having tasted the water of a spring in *Scyros*, fore-told one which hapned three dayes after. Moreover, if these vapors infect the Air too, the Earthquakes are follow'd by contagions.

The Sixth said, That without determining the famous Question of the Earth's Motion, it may be said that it moves about the Heaven as a stone in a circle, it would have the same tremors



and titubations as those which Astronomers attribute to the Bodies of the Planets, besides the regular motions of their spheres; of which Agitations 'tis not strange if Men who are mov'd with it discern not the differences so well as they do those of the Heavens; since they who are in a Ship do not so well discern their own motion as that of others.

II.  
Of Envy.

Upon the Second Poynt it was said, That 'tis no wonder Man is so miserable, since not onely the evil but also the good of others render him equally unhappy. For if we think them unworthy of it, it afflicts us, and raises indignation. If it begets sadnesse in us for not having obtain'd as much, it causes Emulation; but if this good disgusts us meerly because we are sorry that another enjoys it, it produces Envy; and these several affections are not to be confounded. For the two former are not any wayes vicious, but oftentimes virtuous, and signes of a Soul well dispos'd; whereas the last is a grosse vice, directly opposite to Charity, which is the life of the Soul, and to Humane Society, violating virtue, which is the principal bond of it, and when the same is so bright and manifest as not to fear its assaults; whose lustre it obscures, as much as possible, by its stinking breath, and black calumnies. Pride is the Mother of it, Self-love the Father, Treachery, Diffimulation, Detraction and Ruine, its Daughters. And as 'tis the eldest of all vices, so 'tis the most enormous, having cast *Lucifer*, and millions of Angels, out of Heaven, and by his snares caus'd the fall of Man through the perswasion of the Woman, who was ambitious to become a Goddess, and who as more weak and proud is more inclin'd to this passion than Man. Therefore *Aristotle* saith, that the Peacock, the proudest, is also the most envious of all Animals.

The Second said, Other Vices have alwayes some sort of pretext; Covetousnesse, the fear of want; and Ambition, doing service to the publick; but Envy cannot find any, because it malignes what ever is laudable and good out of it self; herein much more pernicious then all other vices each of which is opposite but to one good, as Lust to Continence, Pride to Humility. But this sets it self to ruine, if it can; all the goods of the Body, of Forutne, and of the Mind; and so is a sworn Enemy of Mankind. Such it was in extremity, in that Man-hater *Timon*, who invited all his fellow Citizens to come and hang themselves upon his Fig-tree before he cut it down to build with; in one *Mutius* a Roman, who being very sad, it was said of him, Either some Evill is hapned to *Mutius*, or some good to some other. For the Envious looks only askew upon others prosperity, the thought of which incessantly gnaws his heart, and consumes him by drying up the blood in his veins. Which made the Poets represent Envy in the shape of a squinting woman; with a dull dejected countenance, of a livid complexion; her head wreath'd with vipers, and all the rest of the body lean and ugly. Physitians say, Melancholy persons are most subject to



to it, by reason of that black humour which produces and is produc'd by it. 'Twas through envy that *Tyberius* put to death an excellent Architect, being unable to behold with a good eye a pendant Porch which he had built, and much less his invention of malleable Glass; and it so tormented the spirit of *Caligula*, that he burnt all he could of *Virgil's* Works; and he could not endure the sight of handsome youths, but caus'd their goodly locks to be cut off that they might become deform'd.

The Third said, That envy, as vicious as it is, hath nevertheless some utility, not only amongst private persons to excite emulation amongst Artists, and make them strive who shall sell the best penny-worths; but also for the State, it being held a political maxime, to hinder as much as possible the grandeur of neighbouring States. And the Ostracism of *Athens*, although a balance to preserve democratical equality, was nevertheless an effect of Envy against such as had gotten most credit and authority in the City, whom they banish'd for ten years. Yea had envy no other good in it, but to afford occasion of exercising virtue, it were not unprofitable. The attempt to blemish *Cato's* reputation by making him appear 46 times in full Senate to justify himself from the accusations Envy had charg'd upon him, made him more famous. And the poyson which it made *Socrates* drink, kill'd his body indeed, but render'd his memory immortal. The truth is, if the Greek Proverb hold good, which calls a life without envy unhappy, Envy seems in some manner necessary to beatitude it self. Whence *Themistocles* told one who would needs flatter him with commendations of his brave actions, that he had yet done nothing remarkable, since he had no enviers.

The Fourth said, 'Tis such an irregular passion that it seems to aim at subverting the establish'd order of nature, and making other laws after its own phancy; yea so monstrous that 'tis not a bare grief for another's good, or a hatred of choler, or such other passion; but a monster compos'd of all vicious passions, and consequently the most mischievous and odious of all.

## CONFERENCE LXXIV.

- I. *Whence comes trembling in men.* II. *Of Navigation and Longitudes.*

THE correspondence of the great to the little world requir'd that, after the tremblings of the earth, those should be spoken which happen to men, some of which seize but one part of the body, as the head, lips, hands or legs; some the whole body, with such violence sometimes that *Cardan* relates of a

I.  
*Whence comes trembling in men.*



woman taken with such a trembling, that three strong persons could not hold her. 'Tis a symptom of motion hurt, in which the part is otherwise mov'd then it ought, being sometimes lifted up, and sometimes cast down. For in trembling there are two contrary motions. One proceeds from the motive faculty, endeavouring to lift up the member ; which is done by retraction of the muscles towards their original, which by shortning themselves draw their tail to the head, and at the same time what is annex'd thereunto. This motive power serves also to retain the elevated member in the posture wherein we would have it continue ; the abbreviation of the Muscles not suffering it to return to its first situation. The other motion is contrary to the will, and to that of the motive power, the member being depress'd by its own gravity. From which contrariety and perpetual war of these two motions arises trembling ; one of them carrying the part as the will guides it, and the other resisting thereunto, which is done more speedily then the pulse, and with such short intervals, that the senses cannot distinguish any middle, and makes us doubt whether there be two motions or but one ; as a ball sometimes returns so suddenly towards him that struck it, that the point of its reflexion is not perceiv'd. The causes are very different, as amongst others, the debility of the part and of the animal faculty, as in decrepit old men, impotent persons, and such as are recovering out of long and dangerous diseases, or who have fasted long ; the weakness of the Nerve (the instrument of the animal spirits) its obstruction, contraction, or relaxation ; the coarctation of the Arteries which send the vital spirits to the Brain, there to be made animal spirits, and proper for motion, as in fear which puts the whole body into an involuntary trembling. An Ague also do's the same ; the natural heat which resides in the arterial being carri'd to the relief of the labouring heart, and so the outward parts, particularly the nerves, whose nature is cold and dry, becoming refrigerated, and less capable of exercising voluntary motion.

The Second said, That the actions of the motive faculty, as of all others, may be hurt three ways ; being either abolish'd, diminish'd, or deprav'd. They are abolish'd in a Palsie which is a total privation of voluntary motion. They are diminish'd in Lassitude, caus'd either by sharp humors within, or by tension of the muscles and tendons, or by dissipation of the spirits. They are deprav'd in trembling, convulsion, horror and rigor, or shivering. Convulsion is a contraction of the muscles towards their original, caus'd either by repletion, or inanition. Rigor, shaking and concussion of all the muscles of the body accompani'd with coldness and pain, is caus'd, according to *Galen*, by the reciprocal motion of natural heat, and its encounter with cold in the parts which it endeavours to expell ; or, according to some others, by any sharp, mordicant and troublesome



some matter, which incommoding the muscles and sensitive parts, the expulsive faculty attempts to reject by this commotion. Horror differs not from Rigor but in degrees, this being in the muscles, and that only in the skin; produc'd by some matter less sharp, and in less quantity. But trembling being a depravation and perversion of motion cannot be known but by comparison with that which is regular. Now that voluntary motion may be rightly perform'd, the brain must be of a due temper for supplying animal spirits, and the nerves and parts rightly dispos'd. Hence the cause of tremblings is either the distemper of the brain, or the defect of animal spirits, or the defect of animal spirits, or the bad disposition of the nerves and parts. A fitting temper being the first condition requisite to action; every intemperature of the brain, but especially the cold, is the cause it cannot elaborate spirits enough to move all the parts. But this defect of spirits comes not always from such bad temper, but also from want of vital spirits, which are sent from the heart to the brain by the arteries, to serve for matter to the animal spirits. These vital spirits are deficient, either when they are not generated in the ventricles of the heart through the fault either of matter, or of the generative faculty; or are carri'd elsewhere then to the brain, by reason of their concentration or effusion. As in all violent passions, these spirits are either concentr'd in the heart, as in fear and grief; or diffus'd from the centre to the circumference, as in joy, and not sent to the brain; and in these cases the motive faculty remains weakned, and incapable of well exercising its motions. Lastly, the nerves being ill dispos'd by some distemper caus'd either by external cold, or other internal causes, or else being shrunk or stop'd by some gross humors; not totally, for then there would be no motion at all; they cause tremblings, which are imperfect motions, like those of Porters, who endeavouring to move a greater burthen then they are able to carry, the weight which draws downwards, and the weakness of their faculty which supports it, causes in them a motion like to those that tremble.

The Third said, That to these causes, *Mercury*, *Hellebore*, *Henbane*, Wine and Women, must be added. For they who deal with Quick-silver, who have super-purgations, use stupefactives and things extreamly cold, and Venery in excess, and Drunkards, have all these tremblings; according to the diversity of which causes, the remedies are also different. Gold is an Antidote against *Mercury*, which will adhere to it; Repletion against the second, Heat, Contenance, and Sobriety, against the rest. *Galen* saith, that blood is sometimes to be let, by *Hippocrates's* example, that is, to refrigerate in order to cure trembling. Which if it come from the debility of the Brain and Nerves, they must be strengthened; if from defect or dissipation of vital spirits, they must be restor'd by good diet; if from plenitude, obstruction or compression of the nerves, the humour



mour and peccant cause must be evacuated. But above all the rest the tremulation of old people is hardest to cure, in regard of the weakness and paucity of spirits, as also those that are hereditary and happen to the parts of the left side; because trembling denotes a deficiency of heat and spirits, which yet ought to be more vigorous in the left side, then the right; as being neerer the heart, the source of life.

II.  
Of Navigation,  
and  
Longitudes.

Upon the second Point, That the invention of Navigation, as of all other Arts, is due to Chance. For men beholding great beams swim in the water, first ventur'd to get upon them, then hollow'd them, and joyn'd a prow, rudder, and sides, representing the head, tail, and fins of Fishes, as their back doth the keel of the Ship; and this according to the different natures of seas, and divers uses of Trade and War; both being equally necessary to render a State potent and formidable. As *Solomon* sometimes by this means did, sending his Ships to *Ophir* (which some imagine *Peru*) and *Tarsis*, to fetch Gold, Sweet-wood, and other rarities. As likewise did the Tyrians, Phœnicians, Cretans, Athenians, and in our days almost all Nations. Without the Art of Navigation we should want Spices, and most Drugs which grow beyond the seas; and a great part of the world would have been unknown had it not been for the long Voyages of *Columbus*, *Vesputius*, *Magellan*, and *Drake*, who sail'd round the world.

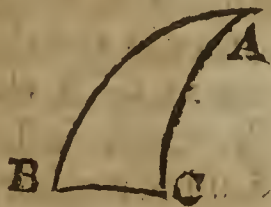
The Second said, 'Twas not without reason that *Cato* repented of three things; of having told a secret to his Wife, of having spent a day without doing any thing, and of having gone upon the sea; and that *Anacharsis* said people in Ships are but a few inches distant from death, and therefore neither to be reckon'd among the living, nor the dead, in regard of the infidelity of that Element. Hence *Seneca* saith, there is nothing to which men may not be brought, since they have been persuaded to Navigation; and *Horace* detests the first inventor of Ships. Nor is it less rashness to invade this Element destinated to Fish, then the Air which is appointed for Birds alone. Our fore-fathers had good reason to make their wills, when they went to sea. But since the use of the Compass it hath as much surpass'd the observation of Stars and Shores (the sole guides of antiquity) in certainty, as the Compass would be surpass'd by the invention of Longitudes, which would teach how to hold a course perfectly certain.

The Third said, That to seek Terrestrial Longitudes is nothing else but to seek the difference of Meridians, that is, the difference between the Meridian of an unknown and a known place; or to speak plainer, the Spherical Angle made by the Meridian of an unknown place with that of a known place. To attain which knowledge men have hitherto made use of four ways, which are all found unprofitable.

The



The first is by an Instrument call'd a *Contepas*, or measure of Itinerary distance, which would be infallible if it were exact. For whoſo hath the true distance between a known and an unknown place hath infallibly the angle comprehended by the Meridians of the two places. For let B be a known place, and C an unknown place; let the distance between the place B, and the place C be the arch B C; if the ſaid arch B C be known, the difference of the Meridians ſhall alſo be known. For let A be the Pole of the World, and draw the arches A B, A C, which are the Meridians of the places B and C. Now ſince the place B is known, the height of the Pole at the ſaid place ſhall be alſo known, and conſequently its complement the arch A B. And although the place C be unknown, yet 'tis eaſie by the ordinary methods to take the height of the Pole; and ſo its complement, which is the arch A C, will be likewise known. Now the arch B C is alſo known, ſince 'tis the distance of the places, and ſuppoſed known. Therefore in the Triangle B A C three ſides being known, the Spherical angle B A C, contained by the ſaid two Meridians, ſhall be alſo known. Which was to be demonſtrated. But being we have no way to underſtand the distance of B C exactly, therefore neither have we the angle B A C exactly.



The ſecond way were alſo infallible if it were practicable, and 'tis perform'd by a moſt exquisite and exact Watch. For ſetting forth from a known place with the ſaid Watch, and having gone as far as you pleaſe, ſuppoſing the Watch to go equally, if you would know the difference between the Meridian of the place where you are and that whence you departed; you need only obſerve the hour at the unknown place, and compare it with the hour noted by your Watch; which if it be the ſame, then you are undoubtedly under the ſame Meridian. But if your Watch ſays one a clock, and at the unknown place it be two; this ſignifies that 'tis one a clock at the place whence you ſet forth; and ſo you are in a Meridian differing fifteen degrees from that of the place whence you came: and ſo in other caſes.

The third way depends upon the Needle excited by the Load-ſtone; for if you ſuppoſe a certain pole to which it is directed, and a regular declination, there will (undoubtedly) be form'd a Triangle of three known ſides, and you will have the difference of any two Meridians infallibly. But becauſe the variation of its declination is ſo great and uncertain that 'tis not poſſible to aſſign a certain pole to it, this invention is found as faulty as the reſt.

The fourth way is by the Moon. Which might be as well by the Sun, or any other Planet. But becauſe the Moon in like time makes more ſenſible differences of change of place, therefore it may better afford the knowledge of longitudes. Suppoſing then that we have Tables of the Moon which do not fail



a minute ; and that 'tis possible to observe the place of the Moon's Centre within a minute where ever you be, you will, undoubtedly, have the longitude, by comparing the time, that is, the hour and the minute at which the Moon is found in that same place of Heaven in the Meridian for which the Tables are constructed, with the time when you find her at the said place in the unknown Meridian ; and then by making the *Æ*quation of the two times. But because the Moon's motion is swift, and that of the *primum mobile* swifter, 'tis found that if you miss but two minutes of the Moon's place, you will erre a degree in terrestrial longitude, which under the *Æ*quator makes sixty English miles ; and so also if you erre four minutes of an hour either in the time of the Tables, or in the time of the observations : and if the error of time be double, treble or quadruple, the error in longitude will likewise be multipli'd. Now the Tables neither are nor can ever be exact, nor the observations made punctually enough for this operation. The reason of which latter is, that 'tis not sufficient to observe the Moon, but you must at the same time with her observe one or two fix'd Stars. And, which is most difficult, you must not only observe the body of the Moon but her Centre. Now to have the Moon's Centre, you must have her Diametre ; which appears at the same time greater to some, and lesser to others, according as the observer's sight is more or less acute. And the Parallaxes with the Refractions interposing too render this practice unprofitable ; for these parallaxes and refractions are different in the very body of the Moon, the inferior part having greater refraction and parallax then the superior. Whence we never have any sure knowledge from the said refractions and parallaxes. For as for Parallaxes, we have indeed very handsome Theories of them, but such as cannot be reduc'd into practice with the preciseness requisite for Longitudes. And, as for the refractions of the air, they are yet more uncertain ; considering that we neither have, nor ever can have, any theory of them, by reason of the continual variation of the density and rarity of vapours. So that 'twere requisite to have Tables for every Horizon, made by the experience of many years ; and yet they would be very uncertain, because the mutations hapning in the air would render them unprofitable. Whence not only at sea but also at land 'tis impossible to have exact observations of the Moon's Centre ; so that *Cespeda*, a Spanish Author, had reason to say, that this operation requir'd the assistance of an Angel. From the defect of observations proceeds in part ; the defect of the Tables of the Moon's motion. I say, in part, for supposing the observations were exact, yet we could not have exact Tables unless we had the true Hypothesis of the Moon's motion and course. Whence the Tables will be different among themselves, which are made upon the same observations, but several Hypotheses. Thus we see *Origanus* and *Kepler* agree not in their Ephemerides, but differ some-  
times



times ten minutes, though both made them upon the same observations of *Tycho Brahe*, but upon different Hypotheses. And thus, there being no true Hypothesis of the Moon, we can never have exact Tables though the observations should be such; and, consequently, since the ways of finding Longitudes by the Moon are Observations and Tables, and neither the one nor the other can be so exact as they ought; men can never find Longitudes this way, unless God afford them some other light of which they have not hitherto the least glimmering. Wherefore *Appian*, *Veret*, *Kepler*, *Metius*, and many others, who have spoken of the means of ascertaining Navigation by the Moon, had reason to judge the practice thereof impossible, as was remonstrated two years ago to one that here made a proposal of it as his own; of which we are not likely to see the execution. The most sure way we have to find these Longitudes is by help of the Lunar Eclipses. For the beginning of them being observ'd in two different places, the difference of the times of their beginnings will give the difference of the Meridians. But this is an expedient more profitable to rectifie Geographical Charts, then serviceable to Navigation.

## CONFERENCE LXXV.

- I. *Of the Leprosie, why it is not so common in this Age as formerly.* II. *Of the ways to render a place populous.*

FOR right understanding the nature of this disease, 'tis requisite to know, that as the Brain is the source of cold diseases, so the Liver is the furnace of hot, such as this is: although its debilitation of the faculties makes some account it cold. For albeit the first qualities be rather the supposed then true parents of diseases, yet being more perceptible to us then other causes, and always accompanying them, therefore our reason more readily pitches upon them. Now the Liver, either by its own fault, or that of the preceding concoction, which it cannot correct, begets adust blood; and this by further adustion in the Veins (through the same excess of heat which it derives into them) becoming atrabilarious, is as such attracted, and retain'd by every part of the body, yet not assimilated, as it ought to be, in colour and consistence, but turn'd into a scurfie, black and putri'd flesh. If that impure blood be carri'd but to one part, and make a tumour in it, it makes a Cancer in it, either open, or occult and not ulcerated; which *Hippocrates* accounted so desperate an evil that he counsels not to meddle with it; whence 'tis vulgarly call'd *Noli me tangere*. So that what a

I.  
Of the Leprosie.



Cancer is in some part of the body) as in the Paps or Breasts, by reason of their spongy substance more dispos'd thereunto) that is a Leprosie in the whole body.

The Second said, No humours in the body are so malignant as to cause a Leprosie, unless they be infected with some venomous quality. The melancholy humour, in whatever quantity, causes only Quartan Agues; or if it degenerate into black choler it causes that kind of folly which they call melancholy. The bilious humour causes Frenzy, never the Leprosie, how adust soever it be, without a pestilential and contagious quality: whence *Fernelius* defines it a venomous disease in the earthy substance of the body, whose nature it wholly alters. For the melancholy earthy humour having once conceiv'd this poyson derives it to the bowels and all other parts; which being corrupted and infected with it, by degrees, turn all food into a juice alike venomous; wherewith the whole body being nourish'd acquires a like nature, and retains the same till death; that gross humour being more apt than any other to retain the qualities once imprinted on it. Now this disease comes either by birth, or by contagion, or by the proper vitiosity of the body. As for the first, 'tis certain, if the Parents be infected with this venomous disease, they transmit the same to their children; the formative faculty not being able to make any thing but suitably to the matter it works upon. Many hold (but groundlessly) that women conceiving during their purgations bring forth leprous children. As for the second, Leprosie hath this common with all other contagious diseases, to communicate it self not only by contact of bodies, but also by inspiration of the air infected with the breath of the leprous, or the virulent smell of their Ulcers. As for the third, which is the proper vitiosity of the body, 'tis produc'd when a great quantity of black choler putrifies and becomes venomous. And there are several species of Leprosie, according to the humour, by adustion whereof that black choler is generated, whether blood, melancholy, yellow choler and salt phlegm. The first being less malignant makes red Leprosie, and the blood having acquir'd excessive acrimony by adustion, amongst other effects, corrodes the root of the hair, and makes baldness; The second caus'd by torrefying of melancholy makes black, green, or livid Leprosie, which is call'd *Elephantiasis*, because it renders the skin rough like that of Elephants. The third, produced of yellow choler burnt, makes yellow Lepers, and is call'd *Leonine*, from the terrible aspect of those that are tainted with it, or from the lips and forehead which it makes them elevate like Lyons. The last, caus'd by salt phlegm, makes white Lepers.

The Third said, That the material cause of Leprosie being any gross humour, and the efficient a vehement heat; when both these causes meet in a sufficient degree, Leprosie is contracted by the ill habit of the body. Hence men are more obnoxious



noxious to it then women who have less heat; for want of which Eunuchs are also free from it, and many have voluntarily made themselves such, to avoid it. Men of perfect age, as between 35 and 48 years, hot and dry, fall most easily into this disease. And of these Southern people more than Northern. Whence *Alexandria*, yea all *Egypt* and *Judea* were most pester'd with it; but especially the latter, where even the walls and vessels contracted leprosie. Which Interpreters more admire than comprehend, and gave occasion to *Manetho* the Historian (who is refuted by *Josephus*) to say, that this Leprosie forc'd the Egyptians to drive the Jews out of their Country. On the contrary, *Germany* knew it not for a long time, nor *Italy* before *Pompey*, in whose time his Souldiers brought it from *Egypt*; the Kings whereof, as *Pliny* relates, were wont to assuage the malignity by an inhumane and abominable remedy, a bath of little childrens blood. But the Scythians were always free from it, as well by reason of the coldness of their climate, as the familiar use of milk, whose thin and wheyie part hinders the generation of melancholy, and the other parts moisten and temper heat. 'Tis also produc'd by food of gross and glutinous juice (as Swines flesh, for this cause forbidden to the Jews) by the Hemorrhoids stop'd, and other suppressions of blood. Now 'tis not so frequent in these days as of old; first because being brought hither by strangers, it appear'd upon them and some of their descents, but could not long consist with the mildness of our air, and so became extinct of it self by the separation of such as were most infected with it; as Peaches are poyson in *Persia*, but delicious fruits amongst us. Secondly, because it being ignominious to be separated from all society, the few Lepers that remain'd would not appear, unless they were forc'd; whilst in the mean time the revenues of Hospitals design'd for their support have been seiz'd by such as favour'd their concealment the better to enjoy the same.

The Fourth said, The decreasing of this disease, as well as of other Epidemical diseases, is to be attributed to certain Constellations. Besides, perhaps the ignorance of former times took the Pox for the Leprosie; and so not knowing how to cure the Pox so well as at this day, it was communicated to more persons. The accidents of these two diseases are almost the same; both are cur'd with *Mercury*, whose excessive coldness and humidity corrects the heat and dryness of the Leprosie, and by its extream tenuity penetrating the more solid parts wherein the Leprosie lies more successfully encounters this atrabilarious venom than *Mithridate* and Vipers do, although much commended by *Galen*, who relates five stories of such as were cur'd therewith, but we have experiences to the contrary in these latter ages, refrigerating and humecting Medecines having been found more profitable than drying, as Vipers are; which, whether our climate, or some other unknown cause, occasion the alter-



ation, rather increase then diminish this evil. Nevertheless, what is reported of the means to cure the Leprosie, especially if hereditary or inveterate, must be understood of a palliative or preservative, not of a perfect cure; which is difficult in the beginning of this malady, when only the bowels are tainted; very difficult in its increase, when the signs begin to appear outwardly; impossible in its State when the members come to be ulcerated; and desperate in its declination, when they begin to drop off. Although *Paracelsus*, by his great work promises to cure not onely men but also all imperfect metals, which he termes leprous.

II.  
Of the wayes  
to render a  
place popu-  
lous.

Upon the Second Point it was said, All our great designes aim at Eternity, and among the means of attaining thereunto, Princes have found none more magnificent, and correspondent to their grandeur, then to build Cities after their own names. Such was that of *Alexander* in the founding of *Alexandria*, of *Constantine* in that of *Constantinople*, of the *Cæsars* in so many Cities of their names; and in our time, of the King of *Sweden* in *Gustavousburg*, of the King of *Spain* in *Philippa*, of the Duke of *Nevers* in *Charle-ville*, and of some others. But to accomplish this great design, 'tis to be consider'd that the business is to be done with men, who are drawn by as many wayes as they consist of parts, to wit, Body and Soul. And because most men are sensual, therefore things relating to corporeal conveniences are most attractive. Amongst which, regard is principally to be had to the Air, as that which we breathe incessantly, to meat and drink, which are of daily necessity. Hence we see few healthful and fertile places desert; whereas barren and desert places, what ever care be taken, alwayes return to their first nature. If those conveniencies be wanting in the place, they they must at least be near hand, and attainable by commerce of Seas and Rivers; which also are advantageous for the vent of home-bred commodities. But the most necessary condition of all is safety; which hath render'd *Holland*, the *Adriatick Gulph*, and almost all Islands populous, as it sometimes assembled many out-laws and miserable persons at the first building of *Rome*; the same course being also practis'd by *Timoleon* to populate *Syracuse*. For Man being naturally a sociable creature, the cause of their assembling together was not the casual concurrence of atoms, as *Epicurus* feign'd, nor the wonder of fire, as *Vitruvius* saith, nor their meeting near pits and springs, much less Musick, Eloquence, or Philosophy; but onely their natural inclination to preserve themselves, and be secure, first, against wild beasts, and then against their enemies, who were kept off with walls. Yet as a fortress needs a strong bulwark, so a frontier Town cannot easily become populous, the guarding of it diverting its inhabitants from attending more necessary Arts, as Agriculture, Manufacture, and Trade. For most Cities are render'd  
populous



populous by some Manufactures, both buyers and sellers resorting to such places where there is most plenty and most vent. Wherefore 'tis one of the best expedients to invite the most excellent Artists from all parts of the world, by immunities, privilege, and rewards. As to the Soul, Religion bears a great stroke in this matter, obliging men to Voyages, Pilgrimages, Offerings, and other devotions, in some places rather than others. And next are Academies and Universities, all sorts of Sciences and Disciplines.

The Second said, That a City being an assembly and union of many persons in order to live happily, filling it with people is not so necessary as exact observation of Laws; which consisting only in order, are commonly neglected in places where multitude causeth confusion. Hence *Solon*, *Lycurgus*, and most ancient Legislators, limited the Inhabitants of their Cities to a certain number, which *Hippodamus* the *Milesian* restrain'd to ten thousand men; and at this day, in some Cities, as *Lisbon* and *Naples*, 'tis not lawful to erect new buildings, which hath also been frequently prohibited at *Paris*. For the same reason many Nations have discharg'd themselves of their people by colonies, or sending them to the conquest of other Territories, as did sometimes the *Gauls* under *Brennus*; the *Goths*, *Huns*, *Alans*, *Hernles*, and *Vandals*, under *Attila* and *Alaric*; and the *Swisses* are at this day in the service of most Princes and States.

The Third said, That the true strength of a State, both for offence and defence, consists in the number of men, and therefore a City flourishes according to its populousness. The small number of inhabitants limited by Legislators hath sometimes been the loss of their Republicks; that of *Sparta* in the battle of *Leuctra* and *Athens*, in one single battle against *Philip*; as it would also have been of the Roman Empire at the defeat of *Cannæ*, where 50000. Romans dy'd upon the place, without the supply which they found in the almost innumerable multitude of the Citizens of *Rome*, render'd populous by the residence of Kings, Consuls, and Emperors, and the supreme Tribunal of Justice which the Senate dispens'd thence to all the world, with whose spoils it was enrich'd. Whose increase was also promoted by the rigorous laws against coelibacy, and the privileges granted to such as had many children; for propagating which, before Christianity, they permitted polygamy and divorce, and authoriz'd concubinage by legitimation of natural issues. Moreover, the felicity of a City lying in the plenty and sufficiency of all things, which is not found except amongst a great number of inhabitants who interchangeably communicate their commodities; the most populous City is the most happy. And experience manifests, that the Laws and Justice are better administred in great Cities, then in hamlets and villages; especially when Concord, whereby small things grow, is maintain'd therein.



## CONFERENCE LXXVI.

## I. Of Madness. II. Of Community of goods.

I. *Of Madness.* Since Man by his treason first destroy'd the goodly order establish'd by God in nature, endeavoring to advance himself above his Creator, the beasts have, also, in just punishment of his crime, shaken off his yoke; some offending him by their breath, others by their sight, some with the voice, most with biting; which if venomous, as that of Serpents and mad Dogs, imprints a malignant quality in the whole habit of the Body, whose temper it destroys. That of mad-dogs, although less painful than any, yet more horrible, and so much more dangerous in that it oftentimes seizes upon the noble parts without being perceiv'd till the madness be at the height. The signes for knowing this Evil in its birth, in order to prevent it, are not taken from the wound which is altogether like other wounds, but from the dog that made it. For if he be mad, he neither eats nor drinks, although he thirst extremely; he pants and blows, hangs out his tongue, which is yellow and tinctur'd with choler, he casts forth dry and clotted froth at the mouth and nose, hangs down his ears, looks wildly with sparkling eyes, flies at known and unknown, and bites without barking; he is lean, carries his tail between his legs clinging to his belly, he runs fast, and stops suddenly, hits upon every obstacle without going out of his way, and other dogs avoid him. But if the dog cannot be seen, then bruised nuts or hot bread must for some hours be lay'd upon the wound, or else meal temper'd with the blood running from it, given to a hungry dog or hen, who will dye if the wound were made by a mad dog.

The Second said, Madness is a malady oftentimes with deliration, caus'd in an Animal by a particular poyson, communicated to Man, with extreme aversion against all liquors, especially water. It happens to Wolves, Oxen, Horses, Cats, and almost all Animals, but most frequently to Dogs, either by reason of their melancholy temper, or a particular inclination which they have to madness, as the swine hath to leprosie. For 'tis an Evil that is not known but by its effects; 'tis a poyson particularly apt to be communicated to Man by biting, by the flaver, foam, or feeding of an enrag'd Animal, not depending on the first qualities, but acting with its whole substance: As appears in that it reigns in great colds and excessive heats, but is cur'd with medicines which act not by their first qualities, but by their whole substance, as the ashes of fresh-water Crabs, and Mithridate; and, according to *Dioscorides*, 'tis contracted by qualities altogether occult, as to sleep very long in the shadow of a Service Tree; and he saith, he saw a Carder of Wool become mad only



onely by having long beaten his wool with a wand of Cornel Tree. The same is affirm'd of a plant call'd Dog-berry Tree. Yet the most part, with *Matthiolus* and *Fernelius*, hold, that these causes may awaken the hidden evil, and augment it, but not produce it, unless in such as have been mad before. But how comes this poyson to lie hid so long, that *Fracastorius* saith it seldome appears before the one and twentieth day, commonly after the thirtieth, in many after four or six moneths, and sometimes after divers years; seeing all poysons being an enemy to the Heart, should be carry'd thither suddenly by the Arteries. This seems to proceed from the proportion of the Agent and Patient, and their severall resistance, differing according to the degrees of the poyson, the diversity of tempers or food, climates, or the part hurt. For poyson being contrary to our nature by particular malignity cannot be wholly subdu'd by our natural heat, and so may preserve its malignity in the body a long while, without manifesting it self till it have first introduc'd dispositions requisite to its reception, which happens to be sooner or later according to the good or bad temper of the body; whence in several persons bitten by the same dog, madness appears in some sooner, in others later. As some have the small pox when they are well in years, others in their infancy, though most Physitians agree that 'tis an Ebullition of some venomous matter contracted by every one in his mothers womb, by impurity of the menstruous blood retain'd during the time of breeding. So the cholerick are sooner tainted with madness and all other poysons then the phlegmatick; such as are lean and have large veins sooner then fat who have small. The skin, artery, vein, nerve and muscle, variously communicate this poyson. The power of Imagination also contributes much to it. Whence *Ætius* relates, that a Philosopher having by his Ratiocination concluded that the dog which appear'd to him in the water of the bath, and made him afraid, was nothing but an effect of his perverted Phancy, there being no affinity between a bath and a dog, drunk largely of it and was cur'd.

The Third said, That the signs of madness are anxiety, causeless anger and fear, heaviness and griping of the stomach, the hiccock, and other convulsive motion, hoarseness of the voice, sweating of the countenance, and contraction of the whole body; but the most certain is the total aversion from water (although the thirst be vehement) which is the certainest remedy in this case, whence some have been cur'd by being unawares plunged into water, and so made to drink whether they would or no. This *Hydrophobia* cannot be from the image of the dog appearing in the water to the patient beholding his own terrible aspect. For some have been possess'd with aversion from water without the biting of a dog; as *Platerus* tells of a woman who became *Hydrophobous* by having abode a whole night neer a river. Much less can it come from the dryness caus'd in them by this poyson; for



for then they would rather desire drink ; but it proceeds from a particular antipathy of this poyson to water, so great, that if the fresh wound of a dog's biting be with cold water, it becomes incurable ; the poyson flying water so much, that at its approach it retires from the surface inwardly, whence it cannot afterwards be expell'd.

The Fourth said, That the Phancy alone was capable to cause this aversion from water, notwithstanding the natural inclination of the parts requiring humectation. For that faculty is very strong in these Patients, having the image of the dog always present, and so they imagine that they see it in the water ; as the Fool *Antiphan* thought he continually saw his own in the air. Yea, possibly, as a little seed is so configurated by the formative vertue that it becomes another animal, and in Plants a hundred grains are made of one : so this poyson containing the idea of the whole substance of the dog, by which alone it acts, when receiv'd into the body, and assisted by natural heat produces new species of the dog ; which being carri'd by the spirits to the Brain are so strongly imprinted in the imagination that reason can hardly rectifie them ; and being again represented in the water by emission of the animal spirits, in vision, make the patients abhor water, and all liquid things. Which will not be thought so irrational by those that maintain that the foam of a mad dog hanging on the hem of linen produces little animals of a dog-like shape ; nor by those who have observ'd the sediments of the Urines of these Patients to have the same figure, as if the whole man became dog in this malady, as he becomes all wolf in *Lycanthropie*.

The Fifth said, The mind and body being both disorder'd in this malady, require each a distinct cure. The mind must be settled, and diverted from that sad object of dogs, and the most usual way in *France* is to be bath'd in sea-water. As for the body, the poyson must be drawn out of the new wound by Cupping-glasses, Scarifications, Suctions, Cauteries, and attractive Cataplasms, such as that of pitch and *Opopanax* dissolv'd in Vinegar ; which *Galen* saith is infallible ; ligatures made upon the wound if the part admit them, or else incompass'd with defensatives, as Dragons blood, and Bole Armenick mingled with the white of an egge ; then some Antidotes or Alexiteries to strengthen the principal parts, and alter the malignity of the poyson ; as the Herb call'd *Alyssum*, because it extinguishes madness, the ashes of Crevish, Mistletoe of the Oak, *Scordium*, Dittany, *Angelica*, and blessed Thistle. Of all which remedies, as also of the purgatives, the dose must be double ; and so proportionate to the greatness of the evil ; but they are unprofitable when the Patient is already averse from water and liquid things, only two, of which *Themison* the Physician is one, being recorded to have been cur'd by them.

Upon



## II.

Of Commu-  
nity of goods.

Upon the second Point, it was said, That a City is a society establish'd in order to living well; and amity being the foundation of society, what conduceth to preserve it in a City ought to be exactly observ'd. Such is community of goods, so much desir'd by *Plato*, that in his Republick he could not suffer the words *Meum & Tuum*, which he accounted the original of all disorders hapning in States; and, as they say, practis'd by *Pythagoras* too amongst his disciples, as by our Monasticks. As also by the *Garamantes*, a people of *Africa*, as *Mela* reports, and by the *Brachmans*, *Esteans*, and *Gymnosophists*. Whilst the *Lacedemonians* observ'd it, their State was the most flourishing of *Greece*. The example of the first Christians is exprefs, who sold all that they had, and laid the money at the Apostles feet; and *Ananias*, with his wife *Supphira*, dy'd for having kept back part of the price of their inheritance sold to this end. For the condemning of the Anabaptists of *Westphalia* under *Munster*, who practis'd this community, was for their Heresie which they cover'd with this specious pretext. And *Diodorus Siculus* relates that among the *Æthiopians* community of goods makes so perfect friendship, that friends not only will conform to one another by the equality of the goods of fortune; but also when one of them becomes blind, maim'd or lame, they deprive themselves of the same members, accounting it reasonable to have community not only of goods, but also of evils, the burden being less'n'd by division, and more supportable by example. But good is greater when communicated to more; communicativeness being a quality which belongs to the best things in the world, as to Light and the Sun, yea to God, who as he is goodness it self, so he is the most communicative of all beings, having communicated himself not only, in eternity, by the generation of the Word and procession of the Holy Ghost, but in time, by the production of all his creatures.

The Second said, That indeed some goods are the more excellent by being communicated, as the Virtues and Sciences are encreas'd the more they are exercis'd and taught. But 'tis not so with the goods of fortune, which diminish by communication and use. Whence men are not sparing of the first, but very much of the latter, restraining the use thereof wholly to themselves. Now although community of goods seems founded in nature, all things having been common at first, and appropriated afterwards by the covetousness of the occupants; yet 'tis directly contrary to the felicity of a City, which consists not onely in a society of Men, but of Men of different conditions, the meanest of which being commonly most necessary in a State would not be exercis'd if all were equally rich and powerful. And if the necessity of Hunger, which sometimes taught Pies and Crows to speak at *Rome*, had not press'd most of the first inventors of Arts, the same would be yet to discover.

N n n

Nothing



Nothing is more beautiful in Nature then Variety, nor yet in Cities. Besides, Men being apt to neglect the publick, in comparison of their private interest, were goods common, they would be careless of preserving or increasing them, and rely upon the industry of others. Thus this equality would beget laziness, whilst they that labour'd most could hope for no more then they that did nothing at all. Moreover, if Wives and Children were common, as *Socrates*, in *Plato*, would have them, it would be a great hindrance to propagation; Children would not own their Parents, nor these their Children; and so there would be no paternal, filial, nor conjugal love, which yet are the surest foundations of human society. Incests and Parricides would be frequent, and there would be no place for the exercise of most virtues, as of Chastity and Friendship, (the most perfect of all virtues) much less of Liberality and Magnificence, since nothing should be given but what belongs alike to all; nor would any be capable of receiving.

The Third said, That in a City, which is a society of companions, some things must be necessarily enjoy'd in common, as Publick Places, Havens, Fairs, Priviledges, Walls, Town-houses, Fortresses, and publick charges. But not all things, in regard of the inconveniences which would follow thereupon; and therefore *Plato* was forc'd to reform his first imaginary Republick, and make another more sutable to the humours of men; permitting every one the possession of some goods, yet with this restriction, that he would not have any become too unproportionably rich.

The Fourth said, That *Plato's* design, in his Republick, was, to conjoyn action and contemplation; he would have a City first Mistress of her self, then of the world; more venerable then formidable to its neighbours; less rich then just, but sober, temperate, chaste, and, especially, religious. And to render it such, he conceiv'd, that by removing all impediments from within by equality of goods, he trac'd out the way to contemplation, which is the supreme good whereunto men aspire; and therefore community of goods which is conducive thereunto, cannot be too highly esteem'd. But in this Age it would deprive all goods of that name, by rendring them common; and there would be no common good, if there were none particular.



CONFERENCE LXXVII.

I. Of Sorcerers. II. Of Erotick, or Amorous Madnefs.

**T**He malignant Spirit's irreconcilable to humane nature exalted above his own, is such, that he is not contented with doing all the mischief he can by himself, but imployes his Ministers and Officers to that purpose; as God, whose Ape he is, imployes his holy Spirits in his works. These Officers are Magicians and Sorcerers. The former are such as being either immediately instructed by the Devil, or by Books of Magick, use characters, figures, and conjurations, which they accompany either with barbarous and insignificant words, or some perversely taken out of the Holy Scripture; by which means they make the Devil appear, or else give some answer by sound, word, figure, picture, or other sign; making particular profession of Divination. Sorcerers are their servants, aiming onely to do mischief; and Sorcery is a species of Magick, by which one hurts another by the Devils help. And as the operation of the Devil is requisite thereunto, so is the consent of the Sorcerers and Gods permission, without which one hair falls not from our heads. This consent is grounded upon a compact, either express or tacite; the former whereof is made by rendring homage, either immediately to the Evil Spirit, or to the Magician in his name, or by addressing a request to him. Commonly they take an oath of fidelity in a circle describ'd upon the ground; the Devil herein, as in other things, imitating the Deity, which is represented by a Circle. A tacite compact is when one makes use of such means learn'd from a Magician or magical books, known to be such, or sometimes ignorantly. But the most ordinary means which they use in their witchcrafts, are powders, which they mingle with food, or else infect the body, clothes, water, or air. Amongst which the black powders are design'd to procure death; the grey or red, to cause sickness; and the white to cure; either when they are forc'd to it, or in order to some greater mischief; although this virtue depend not any ways upon their colour, nor always upon their qualities. Sometimes they perform their witcheries with words, either threatnings or praises. Not that these have any virtue in themselves, any more then straws, herbs, and other things wherewith they bewitch people; but because the Devil is by covenant to produce such or such effects by the presence of these things; shewing himself a faithful performer in certain things, to the intent he may at last deceive them in all.

The Second said, That the charms of Sorcerers differ according to the end whereunto they are design'd; some cause sleep,



and that by potions, charmes, and other enchantments; the most usual of which are pieces of a dead body fastned to the house, enchanted candles made of a particular wick and fat, or of the feet and hands of dead persons anointed with Oyle which the Devil gives them; these they either light up, or place candles at each finger; and so long as this dismal light lasts, they in the house remain in a deep sleep. Other enchantments are to procure Love, some of which act either within or without the body, consisting of what is most sacred in Religion, and most filthy in Nature; (so abominable is this practice, and done in hatred of the Creator) some likewise procure hatred, hinder generation, make women miscarry, increase their pains of child-bearing, dry up the milk, breed thornes, pieces of glass and iron, knives, hair, and such other preternatural things, in the body. Of all which magical effects some indeed are real, but the most part are prestigious. The real are when the Devil makes use of natural causes for such an effect, by applying actives to passives, according to the most perfect knowledge which he hath of every things essence and properties; having lost no gifts of Nature by sin, but onely those of Grace. But when the effect is above his power, or God permits it not, then he makes use of delusions to cover his impotence, making appearance of what is not, and hindring perception of what really is. Such was *Gyges's* ring, which render'd him invisible when he pleas'd; and *Pasetus's* feasts, from which the guests departed with intollerable hunger; as also the money wherewith he pay'd his Merchants, who found nothing at night in their bags. And that famous *Simon Magus*, as Saint *Clement* reports, seem'd to create a man in the Air, render'd himself invisible, appear'd with several faces, flew in the Air, penetrated rocks, turn'd himself into a sheep and a goat, commanded a sickle to reap corn, as it did more alone then ten labourers, and by this means deluded the eyes of all the world, except those of Saint *Peter*. Such was also, in the dayes of our Fathers, one *Trisulcan*, who to defame his Curate, made him think that he was playing at cards, whereas he was turning over his breviary, whereupon he flung it upon the ground; and *M. Gonin* being hang'd on a gibbet, the first presidents mule was seen hanging in his place. Their transports are sometimes real, sometimes imaginary, the Devil keeping them in a deep sleep all the while.

The Third said, That the power of Evil Spirits, whose instruments Sorcerers are, is so limited that they cannot either create or annihilate a straw, much lesse produce any substantial form, or cause the real descent of the Moon, or hinder the Stars motion, as Heathen Antiquity stupidly believ'd. Indeed, they are able to move all sublunary things; so they cause Earthquakes, the Devil either congregting Exhalations in its hollownes, or agitating the Air included therein: *Sopater* having been put to death for so tying up the winds that no merchandize could be transported



transported to *Byzantium*. And *Philostratus* relates, that *Apolonius* saw two tubs or tuns among the *Brachmans*, which being open'd, there arose most vehement winds and rain; and shut again, the Air became calm and serene. *Olaus* also testifies the like of the *Laplanders* and *Finlanders*; who sold winds to Merchants. Moreover, the Devils are call'd by the Apostle, *Princes of the Air*; they cause Hail, Thunder, Rain, and Fire, to fall where they please; yet alwayes conditionally that God lets the bridle loose to them, as he did when he burnt *Job's* servants and flocks, and overthrew the house wherein his children were, with a whirl-wind. So in the year 1533. a Sorcerer burnt the whole Town of *Silthoc* in *Sweden* to the ground. And as they can obscure, so they can infect the Air, and more easily the waters, stopping them and making them run backwards, which *Pliny* saith himself saw in his time. They kill Animals by infecting them or their pastures, or else suffocate them, by entring into them; as they did the swine of the *Gadarenes*. They can also extinguish the plenty of a Country, by transporting the fatness of it elsewhere, not by virtue of the Sorcerers words; much lesse is it by those that they introduce flies, grasshoppers, and caterpillars, or other insects, into a place, either assembling them together, or producing them out of congruous matter.

The Fourth said, That the effects of Nature and Art are to be distinguish'd from those of enchantments; for want of which satisfaction some juglers pass for Sorcerers among the vulgar, who are apt to apprehend supernatural means, when they are ignorant of the natural or artificial causes. For removing of which calumny, *C. Furius Cresnius* being accus'd of having bewitch'd his neighbours fields, and transported all their fertility into his own, brought his servants, his oxen, and plough, into the Senate, declaring that these were all his charms. Moreover, many times the sterility imputed to Sorcerers proceeds from Gods anger, who makes the Heaven iron, and the Earth brass, for their wickedness. So when a private person arrives to great honour or estate suddenly, though it be by his merit, yet the generality of people, the meanest of which account themselves worthy of the same fortune, attribute such extraordinary progresses to the Devil. And yet 'tis a rare thing, if ever heard of, that any one was enrich'd by the Devil; either because he reserves his riches for Antichrist wherewith to seduce the Nations; or because God doth not suffer it, lest men should forsake his service for that of Devils, and the good should be too sorely afflicted by the wicked.

Upon the Second Poynt it was said, That Love being not very wise of it self, 'tis no hard matter for it to become extravagant; for it cares not for mediocrity, and consequently, is subject to most tragical accidents. Its Excess is call'd Erotick, or Amorous Madneſs, which is a species of melancholy deliration, caus'd by

II.  
Of Amorous  
Madneſs.



by the continual representation of the thing lov'd, which possesses the Phancy of the poor Lovers that they can think of nothing else, and many times forget to eat, drink, and sleep, and the other necessary actions of life. 'Tis different according to diversity of temper of brain and body, the degree of the melancholly humour, and the profession of those that are possess'd with it. Hence melancholy persons are fullest of flatuosities and Spirits, and the sanguine, as having most blood, are most subject to it. They are known by their hollow and languishing eyes, inequality of pulse and visage, especially when the party lov'd is spoken of or seen; by which means *Galen* discover'd the Lovesickness of a *Roman* Lady, and *Erasistratus* that of *Antiochus*, *Seleucus's* Son, for his Mother in law *Stratonice*. This distemper is the more dangerous, because 'tis pleasing to those that are tormented with it; and hard to cure, because they fear nothing more than their cure, being fond of their fetters. But being a disease of the Mind, the surest remedy is to divert from the thought of what they love, and to avoid idleness, the mother of lasciviousness. The body also must be conveniently purg'd from its predominant humours, according to which these patients differ; the sanguine are merry, and laugh continually, and oftentimes alone, love songs and dances; the cholerick are froward, and so furious that some have kill'd themselves through the violence of their passions; and Romances are full of such persons. The melancholy are pensive, solitary, and sad; that dull and cold humour hebitating the souls motion. If this distemper proceed from abundance of geniture, remedies must be us'd which extinguish it, as Rue, Purslane, Lettice, Water-lilly, Willow-leaves, Coriander seeds, *Agnus Castus*, Camphir, and Mint.

The Second said, As Love is the original, so 'tis the Abridgement of all Passions. You may see these poor Lovers in the same hour love and hate, fly and desire, rejoyce and sorrow, fear and dare, be angry without a cause, and be pacifi'd again with less reason; in brief, never to have their Minds settled, any more than their bodies, in the same posture and complexion alike. Whence many have thought this malady produc'd by enchanted Drinks or Philtres; which may indeed make one amorous, but not determine him to a certain person; besides that these Drinks cannot act upon our Will which is incorporeal, nor captivate its liberty to a particular object; unless the Devil have a hand in the business.

The Third said, That the famousst of all Philtres is Hippomenes, powder'd and taken knowingly by the Lover. 'Tis a little black and round piece of flesh, about the bigness of a dry fig, found upon a Colt's fore-head new foal'd; whence it must be taken betimes, else the Mare bites it off, and if she be deceiv'd of it, never affects the foal afterwards; and therefore 'tis call'd by *Virgil*, *Matri præreptus Amor*. The same effect is attributed



attributed to the seed of Mares, to a plant call'd Hippomanes, and, by *Pliny*, to the hair of a Wolfs tail, the fish Remora, the brain of a Cat, and a Lizard; and by *Wierus*, to Swallows starv'd to death in an earthen pot, the bones of a green Frog-excarnated by *Pisnires*, the right parts of which, he saith, conciliate Love, and the left hatred. But to shew the vanity and impurity of these inventions, most Philtres are taken from Animals generated of corruption, excrements, and other filthy and abominable things; and commonly, all rather excite Fury then Love, as appears by many to whom *Cantharides* have been given; and *Caligula*, who was render'd mad by a drink of his wife *Cesonia*; one *Frederick* of *Austria*, and the Poet *Lucretius*, by a Philtre given him by his Wife *Lucilia*. Love is free, and fixes not by constraint; 'tis not taken in at the mouth, but the eyes, the graces of the body being the most powerful charm, as *Olympia* Wife of *Philip* of *Macedon* acknowledg'd, when being jealous that her Husband lov'd a young Lady that was said to have given him amorous potions, the Queen sent for her, and having beheld her great Beauty, said that she had those Philtres in her self. Now if these gifts of the body be accompany'd with those of the mind, and the party endu'd therewith testifie Love to another, 'tis impossible but the affection will become mutual, Love being the parent of Love; whence the Poets feign'd two Cupids, *Eros*, and *Anteros*; and *Ovid*, an intelligent person in this matter, knew no surer course then this, *Ut ameris amabilis esto*.

The Fourth said, Love is a spiritual thing, and consequently produc'd by means of the same nature. Hence an ill report, which is a thing not onely incorporeal, but commonly phantastical and imaginary, extinguishes all Love for a person otherwise lovely as to the graces of the body. And the choice between equal Beauties shews that Love is not founded upon the outside. Wherefore they take the wisest course to get themselves lov'd who use inductions and perswasions, which are the common means to make marriages. By all which it appears, that Amorous Madness is a distemper of the mind, and as such to be cur'd.

## CONFERENCE LXXVIII.

I. *Why the Sensitive Appetite rules over Reason.*

II. *Whether Speech be natural, and peculiar to Man.*

**A**ppetite is an inclination of every thing to what is good for it self. There are three sorts in Man. First, the Natural, which is in plants who attract their nourishment, and also in some inanimate things, as the Load-stone and Iron; yea, in the Elements

I.  
*Why the Sensitive Appetite rules over Reason.*



ments, as the dry earth covets water, and all heavy bodies tend to their centre. 'Tis without Knowledge and Will, even in Man, for all natural actions are perform'd best in sleep. Secondly, the *Sensitive*, common to Man and Beast, which some erroneously deny to be a humane faculty, because 'tis the seat of the Passions, the enemies of Reason which constitutes Man. But the encounter of it with Reason argues their distinction. Thirdly, the *Rational*, call'd the Will, which is Mistress of the former two; and besides makes use of Reason, for the knowing of one or more things. And because desire cannot be without knowledge, therefore the Sensitive Appetite presupposes the knowledge of the Imagination, and the Will that of the Understanding; but the Natural Appetite depends on that of a First Cause, which directs every natural form to its particular good, though it know not the same. Now 'tis demanded, how the Mistress comes to obey the Servants, notwithstanding the Maxime, That the Will tends to nothing but what is good, which cannot be without truth; and this is not such, unless it be approv'd by the Intellect. It seems to me improper, to say that the Sensitive Appetite prevails over Reason, but rather hinders it by its disturbance from pronouncing sentence, as a brawling Lawyer doth a Judge by his noise.

The Second said, That Reason is alwayes Mistress. For Men govern themselves according to Nature (the universal rule of all things) and, this nature being rational, they cannot be guided otherwise then the motions of Reason. But some find Reason where other finds none. The Thief accounts riches ill divided, and therefore he may justly possess himself of what he wants; and however he sees evil in the action, yet he conceives more in his necessity, which his Reason makes him account the greatest of all evils. So that comparing them together, he concludes the less evil to be good, and wittingly attempts the crime, not owning it for such whilst he commits it. The same may be said of all other sins, wherein the present sweetness exceeds the fear of future punishment. If Conscience interpose, they either extinguish it, or else wholly forbear the action: Unless the Mind happen to be balanc'd, and then they are in confusion, like the Ass which dy'd of hunger between two measures of corn, not knowing which to go to. For 'tis impossible for the Will to be carry'd to one thing rather than another, unless it find the one better and more convenient.

The Third said, 'Tis congruous to nature for the Inferior to receive Law from the Superior. So Man commands over beasts; and amongst Men, some are born Masters, and others slaves; the Male hath dominion over the Female, the Father over his Children, the Prince over his Subjects; the Body receives Law from the Soul, the Matter from its Form, the Angels of Inferior Hierarchies receive their intelligence from the Superior; and the lower Heavens the rule of their motions from the higher; the  
Elements



Elements are subject to the influences of those celestial bodies; and in all mixts one quality predominates over the rest. Since therefore the Sensitive Appetite is as much below Reason, as a beast below a Man, and the Imagination below the Intellect; according to the same order establish'd in Nature, Reason ought alwayes to have the command over it; because having more knowledge 'tis capable to direct it to its end. But through the perversity of our Nature, we more willingly follow the dictates of Sense then Reason, of the Flesh then the Spirit; because the former, being more familiar and ordinary, touch us nearer then Reason, whose wholesome counsels move not our Will so much, which being Mistress of all the faculties, according to its natural liberty, may sometimes command a virtuous action, of whose goodnesse Reason hath inform'd it; sometimes a vitious one by the suggestion of the Sensitive Appetite, which makes it taste the present sweetness and delight, whose attraction is greater then that of future rewards promis'd by virtue to her followers. Hence *the Law of the members so prevails over the law of the mind*, as sometimes wholly to eclipse the same, as in those who are blinded, and hardned in vice; sometimes it forces it to come over to its own side, and back it exorbitance with Reasons: In some others in whom Reason remains intire, and there is a clear knowledge of the turpitude of an action, yet the Will is so bound and charm'd by the vehemence of the Passions of the Concupiscible and Irascible Appetite, that it follows their motions inspight of the remonstrances of Reason. Such was *Medæa*, who by reason saw the heinousness of her intended murder of her Children; but rage and desire of revenge upon their Father *Jason* transported her. So it was said of the *Athenians*, that they knew indeed what was fit to be done, but did it not.

The Fourth said, They who hold that Virtues are not habits distinct from Sciences would not be of this opinion, that we can know good and do evil; for Divinity teaches us, that there is no sin without ignorance; and that as 'twould not be in our power to sin if we had perfect knowledge of the turpitude of Vice, so 'tis impossible for a man to know the beauty of Virtue without loving her; considering too, that we have in us the seeds of Virtue to which we are naturally lead, inasmuch as it conducts us to the supreme good; seeds which would grow of themselves, were it not for the depravation of our judgement, which being imb'd with the false maxims of the Imaginations which governs all our actions, and judges not of the goodness of things but by sense and common opinion, according to which glory follows vice, and contempt poor Virtue; this is the cause that these seeds of Virtue are stiff'd in the birth. Whereunto greatly conduces the example of other vicious persons, who are more numerous then the virtuous. And as Vice is more sensible, so it easily passes into habit, this habit into custom, which being another nature begets a kind of necessity to Vice, which becoming familiar, by



degrees seems most agreeable in respect of the severe aspect of Virtue; men having in this condition Appetites as irregular as those of Child-bearing women, who prefer char-coal, chalk, and ashes, before good Aliments.

The Fifth said, That the contest between the Sensitive Appetite and Reason arises from the diversity of their objects, unto which either of them endeavours to draw the Will. Hence if it happen that Honesty, the object of Reason, be a sensible evil, as to fast, fight, or indure any thing contrary to the sensitive Appetite, whose object is delectable and sensual good, there arises a combat between these two Faculties, in which Reason is many times worsted for want of being well seconded. But when the object of Reason and the Appetite is the same, namely, a sensible good, there is no debate between them. For Reason proposing it to the Will, it spontaneously tends to it, being also lead thereunto by the Sensitive Appetite. Hence, in Indignation, Compassion, and Emulation, which are rational motions accompany'd with anger, grief, and self-love, there is no fight between the Sensitive Appetite and Reason, since in these virtuous motions Reason gives the bridle to those Passions which are the Emissaries of the Appetite. As when the commands of a Master agree with the inclinations of the Servant, he sets upon performing them cheerfully. But being it very seldome happens that what is commanded by Reason agrees with the Passions of the Appetite, but is commonly difficult and laborious; 'tis not to be wondr'd if this intestine war be frequent, and the Appetite get the better of Reason. Moreover, what is in the Intellect, being transmitted from the Senses, equally revolted against this Faculty their Princess, it still retains something of the grossness of Sensuality; so that these notions of the Intellect, oftentimes taking part with the Senses and Sensitive Appetite, Reason cares not to prevail over them; it being also proper to inferiors to have some contrariety to the commands of their Superiors, as is seen in the Celestial Spheres which have a motion opposite to that of the First Mover. Besides that the Empire of Reason over the Appetite is not despotical, or of a Master over a Servant; but political, such as that of a Magistrate over the Citizens, and consequently, half voluntary.

II.  
Whether  
Speech be  
natural and  
peculiar to  
Man.

Upon the Second Poynt *Plato's* opinion was mention'd, that the Gods having by *Epimetheus* produc'd all other Animals with some particular gift, made man naked and weak, destitute of all natural aids, and subject to so many miseries that they pitied him, and thereupon order'd *Prometheus* to give him Reason, Speech, and Hands; the first, to know and contemplate the marvells of the world; the second, to express his thoughts outwardly; the last, to put his words and thoughts in execution. Reason not differing from Speech, saving that it is internal; whence 'tis also call'd the *word of the mind*; and the other external.



nal. This external Speech is so excellent, that though it consist but of wind, which is Air striking against the Epiglottis, modified and articulated by the tongue, lipps, palate, and teeth; yet 'tis the interpreter of the reasonable soul, according to whose example 'tis equally receiv'd into all the ears of the Auditors. When this Speech is true, 'tis a sign of the mind's conception, and as natural and peculiar to man as Reason it self, one of whose goodliest priviledges it is. Besides, man being born to live in society needed not onely Reason to guide himself, but also Speech, to govern others, which likewise hath more power over Souls, inclining and turning them as it pleases.

The Second said, Some Animals are perfectly mute, as worms and Snails; others render some sound, as Flyes, Grasshoppers, though 'tis onely that of their wings; and some have voice, as all perfect animals, amongst whom man hath the particular advantage of Speech. For sound is a Collision of Air between two solid bodies. Voice is a sound render'd by the mouth of an Animal to express its affections. But Speech is a voice which signifies by institution, and is call'd a verb if it signifie time; otherwise a noun. As it signifies by institution 'tis distinguish'd from the voice which is a natural sign, and hath some correspondence with the thing signifi'd. So the hoarse voice of one angry perfectly represents the inundation and tempest of the Spirits in this Passion. The lowness and mildness of a sad and afflicted mans voice represents the effect of sadness, which is to compress the Heart and Arteries; for these organs being coarcted, the voice becomes more slender; as appears in Women, fat people, children, and eunuchs. The Lover's interrupted speech betrays the inequality of his mind. But words are signes without any reference to the thing signifi'd, depending onely on the Will of those who first gave names to things. For if they were natural signes, they would be understood by all the world, and be every where the same. But though 'tis not natural, but acquir'd by precepts and use, specially by the hearing, whence people deaf by nature are also dumb; yea, 'tis very peculiare to man. Wherefore Speech is improperly, figuratively, artificially, or else miraculously ascrib'd to other things; as when *The Heavens* are said to declare the glory of God, one deep to call on another, &c. When *Balaams* Ass spoke, 'twas by Miracle. But when *Simon Magus's* dog spoke to Saint Peter, 'twas by operation of the Devil; as also what is reported of the two Pigeons, the Oke at *Dodona*, *Achilles's* Horse, the keel of *Argo*, and that Elm of the Gymnosophists mention'd by *Philostratus* to have saluted *Apollonius* at his arrival, as the River *Causus* bid *Pythagoras* good-morrow. But Speech properly belongs onely to man; other creatures are incapable of it, both because they want Reason (which is the principle of it) and organs, which are a tongue, a palate, teeth, and lipps, all rightly proportionated for the articulation of voice; for man's tongue alone is soft, large, moveable and loose; to which qualities those of Pies and Parrots come nearest.



The Third said, A natural thing is either born with us, as sense and motion; or comes afterwards of it self, as laughter, or whereof we are naturally capable and inclin'd to, as Arts and Sciences. In the first and second signification speech is not natural to man, who could not speak without learning, whence the two children caus'd by *Psammetichus*, King of *Egypt*, to be nurs'd in a Desert by two dumb Nurses pronounc'd no other word but *Bec* which they had heard of the Goats. But in the last signification 'tis peculiar to man, who is so inclin'd to it, that were children let alone from their Cradle they would in time make some language by signs, or words. 'Tis to be understood too, that 'tis articulate speech, such as may be written, that is peculiar to man, not inarticulate, which though a natural sign of the affections within, yet cannot properly be called speech, because found also in beasts, whose jargon *Apollonius* and some others are said to have understood; for hearing the chattering of a Swallow to her companions, he told those that were present that this bird advertis'd the others of a sack of Wheat fallen off an Ass's back neer the City: which, upon trial, was found to be true.

## CONFERENCE LXXIX.

### I. *What the Soul is.* II. *Of the apparition of Spirits.*

I.  
*What the  
Soul is.*

THE difference of inanimate, living and dead bodies, manifestly evince the existence of a soul. But its essence is so unknown that Philosophers doubt in what degree of Category to put it. For 'tis of that kind of things which are not known by themselves, but only by their effects; as local motion and substance, which is not perceptible but by its accidents. So the outward shape of animated bodies acquaints us with their inward form. For the soul shapes all the external parts after the same manner; as Plants and Animals of the same species have commonly their leaves and members of the same external figure; whereas you scarce find two stones, or other inanimate bodies, of the same shape.

The Second said, That the soul, according to *Aristotle*, is the first act of a natural body organiz'd, having life in power, or potentially. Meaning by act perfection, which he expresses by the word *Entellechie*, which signifies to be in its end and form, which two are the same in natural things. 'Tis call'd *Form* upon account of its beauty; and *divine*, from heaven, its original; and 'tis the first of all other second acts, which are produc'd by it, such as all vital actions are. For as in the most imperfect of beings,



beings, Matter, there is a First or remote power, as in water to become fire; another second or next, as in the same water to become air by rarefaction: so in the nature of Forms, the noblest created Beings, there is a First act, the source of all vital actions, and a Second, comprehending the faculties and functions: Now this Soul is not a *pure* act (as God and Angels are) but an act of the Body, on whom it depends either in its being, and preservation, or else only in operation. Hence Sensitive and Vegetable Souls cease to be upon the change of the dispositions which produc'd and supported them. The reasonable Soul too in some manner depends upon the Bodies disposition as to its operation, not as to its being and preservation, being immaterial and immortal. 'Tis call'd an act of a *natural* Body, to distinguish it from Machines or Engines which move artificial and inanimate Bodies; organical, because Organs are requisite to its action. It must also have life in power, that is, be able to exercise the vital functions. For want of which a carcase, though organiz'd, yet cannot be said to be animated, no more than Egges and Seed, for want of Organs, although they have life in power.

The Third said, He was of *Pythagoras's* opinion who call'd it a number, there being nothing in the world wherewith it hath more correspondence and proportion. 'Tis *one* in its essence; it makes the *binary*, which is the first number, by its conjunction with the body, and division of its Faculties into the Intellect and Will; the *ternary*, by its three species of soul, Vegetative, Sensitive, Rational; the *quaternary*, by the four qualities constituting the temper requisite to its introduction into the body; of which four numbers put together is form'd the number ten, whence all others proceed; as from simple Apprehension, Enuntiation, Argumentation and Method, which are the four operations of the reasonable soul, whence all its notions proceed.

The Fourth said, 'Tis not enough to say, with the Philosopher, that the soul is an act or perfection, or that by whose means we live; it must be shewn what this act is; whether Substance or Accident. *Pythagoras* by calling the soul a number moving it self, reduces it under Quantity. According to *Galen*, who acknowledges no other Soul but the Temper, 'tis a Quality; as also according to *Clearchus*, who defines it harmony. Of those who believ'd the soul a substance, some have call'd it the purest part of some Element; as *Heraclitus*, of fire; *Anaximenes*, of air; and *Thales*, of water; none, of earth, in regard of its gross matter. *Critelaus* said 'twas a Quintessence; *Democritus*, a substance compos'd of round Atoms, and therefore easily movable. Now the soul is a substance (not an accident) because it composes a substance, making with the body a total by it self. Nor is it Quantity, because Quantity is not active; much less a self-moving number, because number is an Entity of Reason,  
and



and nothing is mov'd of it self, but of some other. Nor is it any of the four qualities; which being indifferent of themselves must be determin'd by some form; much less a temper, which is found in all mixts, of which some are inanimate: nor a harmony, for this is compos'd of contrarieties, but the soul is simple, and consequently not susceptible of contraries. 'Tis therefore an incorporeal substance; otherwise, were the soul corporeal, there would be a penetration of dimensions in its union with the body; consequently, 'tis no Element, nor any Compound of them, as *Empedocles* and *Plato* phanci'd, upon this ground, that the soul being to judge of all things should therefore have all their principles and elements in it self. Which is absurd, for it knows divers things not compos'd of the Elements, as the Angels and Heavens. So that the soul must be concluded in the number of those things which 'tis easier to affirm what they are not then what they are.

The Fifth said, That the soul is a fire, whose centre is Heaven, and God the source, who is call'd by the name of fire, in the Holy Text. Hence life, an effect of the soul, is nothing else but heat, and death cold. Moreover, as fire makes bodies lighter, so living bodies are less heavy then dead. And the Hebrews call man *Isch*, from the word *Esch* fire; as the Greeks do *Phôs*, which signifies light, which is a species of fire, lucid but not ardent; which light appears upon bodies whilst living, and dis-appears as soon as they are dead. Now the different sorts of souls are produc'd of different lights. Those of Plants are form'd of that of the air; whence they have no sensible heat, as the sensitive have, which are generated of the Sun, which also gives them local motion: rational souls are beams diffus'd from God who inhabits light inaccessible. And as waters ascend as high as their springs, so the souls of Plants exalt themselves into the air, whose mutations they follow; those of Beasts return into the Sun; and those of men are reflected towards God, having this common with light, that they perish not, but return to the place of their nativity. Agreeably whereunto, *Solomon* saith, That there is nothing new under the Sun; since even the forms of things are not new, but only appear in their turn one after another; as when light forsakes our Hemisphere it no more perishes then shadow, but they both make a continual circle, which follows that of the Sun.

II.  
Of the Ap-  
parition of  
Spirits.

Upon the second Point, it was said, That the perfection of the Universe requires the existence of Intellectual Creatures, such as Angels and Rational Souls. A truth acknowledg'd by *Aristotle*, who assigns nine Spirits subservient to the First Mover, according to the number of heavens which they are to move; although *Mercurius Trismegistus* acknowledges but two which hold the Arctick and Antarctick Poles. Which *Avicenna* also denoted by his Chain of Intelligences. Amongst these Spirits  
some



some are destinated for the preservation of men, as Guardian Angels, call'd by the Apostle ministring Spirits, which were the *Genii* of the ancients, by which they made their greatest Oathes. Others have continual war with mankind, as the Devils. Others animate bodies, as Rational Souls, which after the bodies dissolution are happy or miserable, according as they have done good or evil. As for Angels and Demons, History both sacred and prophane testifies their frequent apparition to men. Daily experience proves the same of the souls of the dead, though some question it. But besides that 'tis presumption to dis-believe all antiquity, which tells us of a Ghost which spoke to *Brutus*, one which shew'd a Sceleton in chains to *Athenodorus* the Philosopher; and that of *Cleonice* which tormented *Pausanias* (who had slain her) as long as he liv'd; as also the Ghost of *Agrippina* did her son *Nero*. The authority of Holy Scripture instructs us of the return of *Samuel*, *Moses* and *Elias*; and the same reason which makes the soul loath to part from its body argues it desirous to visit the same, or the places and persons wherewith it was most delighted. Nor is it more difficult to conceive how a separated soul can move it self, then how it moves the body which it animates, the one and the other being equally incomprehensible.

The Second said, Spectres exist not saving in the Phancy, those who think they see them conceding that they are not palpable, nor beheld alike of all by standers, and men being prone to acquiesce in their own imaginations though misguided by the passions of fear, hope, love, desire; especially children and women who are more susceptible of all impressions, because their phancies are so weak as to be no less mov'd with its own fictions then real external representations by the Senses. But strong minds are not subject to such delusions.

The Third said, He is too sensual who believes nought but what he sees; for according to this account nothing but accidents which alone fall under the cognizance of sense should be admitted. So the Saduces and all Libertines deny spirits, whilst they appeal only to Sense. Although it be an universal Doctrine of all sober antiquity that there are spirits, and that they appear oftentimes to men in cases of necessity, wherewith, according to *Aristotle* himself, the souls of the dead friends are affected; a manifest argument of the soul's immortality, which he believ'd only by the light of nature. As *Apuleius* reports, the Platonists make three sorts of Spirits, First, Demons or *Genii*, which are souls whilst they animate bodies; Second, *Lares* or *Penates*, the souls of such as had liv'd well, and after death were accounted tutelary gods of the houses which they had inhabited; Third, *Lemures* or Hobgoblins, the souls of the wicked, given to do mischief or folly after death, as they did during their life. Some others, especially the Poets, conceiv'd man compos'd of three parts, Body, Soul, and Shadow, which latter appeared after dissolution



dissolution of the two former; the body returning into its elements, and the soul going either to Heaven or Hell, as the shadow did into the *Elysian* fields, from whence it had no liberty to return, but only wander'd up and down so long as the body wanted burial.

The Fourth said, We must distinguish between Vision and Apparition. The former is, when we think we behold a thing which afterwards comes accordingly to pass as it appear'd; the latter is, when some visible forms present themselves to us either waking or asleep; and 'tis of three sorts, intellectual, imaginary, and corporeal. The intellectual is, when separated substances insinuate themselves into the mind without borrowing any external shape. The imaginary is, when they imprint some strange forms or species in the phancy, and by this means make themselves known to us. The corporeal is, when they present themselves to our outward senses. To omit the first, which is rare, and an image of the Beatifical Vision, the imaginary apparition of souls is caus'd when Angels or Demons, according to the quality of the souls, pourtray in our phancy the species and signs of their countenance and personage which they had during life, which appears sad, cover'd with black, whilst they yet endure the punishments of their sins; but cheerful, and in white habit, when they are deliver'd from the same. And although this apparition is imaginary, yet 'tis real too. Thus *Judas Maccabeus* knew *Onias* and *Jeremy*; *Constantine* saw *S. Peter* and *S. Paul*, and according to the opinion of many *Samuel* appear'd to *Saul*, and foretold him of things which were to befall him; though others conceive 'twas a corporeal apparition; which also is much more certain, because souls either appear with their true bodies (although this is very rare too, yea and unbecoming happy souls to rejoin themselves to putrifi'd carcases) or most commonly assume bodies of air. The cause of which apparitions is ascrib'd to the union which is between the soul of the dead person and that of the surviving to whom it appears, whether the same proceed from consanguinity, or identity of manners, great familiarity and friendship, which seems to make but one soul of those of two friends; so that the soul finding it self in pain either through present or future evils, especially when it sees it self oblig'd to the performance of some vow neglected during life, God for his own glory, the ease of his creature, and the conversion of sinners, permits it to manifest it self by ways most convenient.

CON-



## CONFERENCE LXXX.

## I. Of the Epilepsie or Falling Sicknes. II. Whether there be any Art of Divination.

THE vulgar Maxime is not always true, That a disease  
thoroughly known is half cur'd. For this disease, though  
known to the most ignorant, is of very difficult cure, and there-  
fore was call'd by antiquity the *Herculean* disease, that is to say,  
unconquerable; the *Sacred* disease, because of its dreadful  
symptoms; and *Lunatick*, because those who are born either  
in the Full or New Moon, or during its Eclipse, are troubled  
with this malady, which hath great correspondence with the mo-  
tions of the Planet; 'twas also call'd *Morbus caducus*, or Falling  
Sickness, by reason that it makes the person fall to the ground,  
and *Comitialis*, because it interrupted Assemblies; lastly, 'tis  
call'd Epilepsie because it intercepts the functions of the mind  
and senses. 'Tis defin'd, the cessation of the principal actions,  
and of sense and voluntary motion, with convulsion, which is  
not continual, but by internals. The true and proximate cause  
of it is either a vapour, or an humour pricking the membranes of  
the brain, which endeavouring to discharge the same contracts  
it self, attracts the nerves to it, these the muscles and parts into  
which they are implanted; causing hereby those convulsive  
and violent agitations of the Epilepticks. Sneezing and the  
hickcock have some resemblance of it, the latter being caus'd  
by a sharp vapour sent from the stomach or other place by sym-  
pathy to its upper orifice which it goadeth with its acrimony,  
and thereby forces it to contract it self in order to expell the  
same; the former call'd by *Avicenna* the lesser Epilepsie, dif-  
fering not from the greater, saving in duration, is also caus'd by  
some vapours pricking the former part of the brain, which con-  
tracts it self to expell the same by the nostrils.

I.  
Of the Epi-  
lepsie or Fal-  
ling Sicknes.

The Second said, That the unexpectedness of this malady,  
and the Patient's quick recovery, may justify the vulgar for  
thinking that there is something divine in it. Since nothing  
amazes us more then sudden uncomprehended alterations.  
Therefore in *Hippocrates* days they us'd to make expiations and  
incantations for this disease, which he derides, saying that the  
bad Physicians promoted this false conceit, that they might get  
the more honour for the cure, or be more excusable for not ef-  
fecting the same.

The Third said, That the Epilepsie and Apoplexie differ  
onely in degree, both having the same cause, namely, abundance  
of gross humours, either phlegmatick or melancholy; which if  
it wholly fills the brains ventricles, and makes a total obstruction;  
so that the Animal Spirits, the instruments of voluntary motion



and sense be obstructed, it causes an apoplexie, which is a total abolition of sense and motion in the whole body, with læsion of the rational faculty. The Heart continues its pulse for some time, till the consumption of what Animal Spirits were in the Nerves, serving to the Muscles for respiration. But if the obstruction be not perfect, and the crass humour over-loads the ventricles, then they contract themselves and all the Nerves which depend upon them; whence comes that universal contraction of the limbs, as one cover'd in bed with too many clothes pulls up his legs, bends and lifts up his knees, to have more air and room under the load which presses him.

The Fourth said, That as the brain is the moistest of all the parts, so it abounds most in excrements; the thinnest of which transpire by the futures & pores, but the grosser meeting in great quantity in the brain melt its substance into water, which coming to stop the Veins and Arteries hinder the commerce of the spirits; whether this pituitous matter be deriv'd from the paternal or maternal geniture, or whether the part of seed which makes the brain happen not to be well purg'd in the womb where the rudiments of this malady are first laid; or whether the brain purge not it self afterwards sufficiently by its emunctories, and the scabs usual to Children. *Hippocrates* saith, this malady cannot begin after twenty years of age, when the constitution of body is become more hot and dry; and many Children are cur'd of it onely by the desiccation caus'd by the alteration of age, seasons, and manner of dyet.

The Fifth said, That a gross humour cannot be the cause of those quick and violent motions of the Epilepsie, nor be collected and dissipated in so short a time as the duration of a Paroxisme. Therefore the cause of it must be some biting and very subtile matter; for no such gross obstructive matter is found in the brain of those that dye of this malady, but onely some traces or signes of some malignant vapour or acrimonious humour, as black spots, a swarthy frothy liquor, an Impostume in the brain, some portion of the Meninx putrid, corrosion of the bone, and such other things evidencing rather the pricking of the brain then stopping of its passages.

The Sixth said, That were the Epilepsie produc'd by obstruction, it would follow that as a total one in an Apoplexie abolishes all sense and motion, so the incomplete one of the Epilepsie should onely diminish, not deprave motion as it doth. So that the Epilepsie should be a symptom like the Palsie or Lethargy, from which nevertheless 'tis wholly different. Nor can it be simply the mordacity or malignity of an humour, since malignant and pestilential Fevers, hot and dry Aliments, as spices, mustard, salt, garlick, onyons, and the like biting things, cause not this Evil. The truth is, there is a specifical occult quality of the humours particularly disposing to this disease; the Chymists call it a Mercurial Vapour, (that is, an acid penetrating, and subtile spirit)



a Vitriolike Spirit, a biting and corrosive salt; which makes not men onely, but Quailes, Dogs, Sheep, and Goats, subject to it. And as somethings beget this malady by an occult Epileptical quality, as Smallage, Parsly, a goats liver roasted, and stinking smells, as horn, pitch and jet burnt, (whence the Ancients being about to buy a slave, made him snuff up smoak of brimstone, to try whether he were not subject to this disease) so many Ant-epileptical remedies cure it; but that which proceeds by sympathy from the stomach, or other parts, more easily then that which is idiopathical, and radicated in the brain. As the shavings of man's skull not buried, drunk with water of Teile-tre and Pæony, so contrary to this evil, that it cures the same by being hung about the neck.

Upon the Second Point 'twas said, That Man, who alone understands the nature and difference of Time, is more solicitous about the future then about the present, which is but a moment; or the past, which concerns him only historically. Hence arises his ardent desire of presaging to satisfy which, he makes use of every thing in the world. Which is an infallible argument of the vanity of this Art of Divination; because effects cannot be fore-told by all sorts of causes, but onely by those wherewith they have connexion, and wherein they are potentially contain'd, as leaves and fruits are in the seeds; and 'tis receiv'd a Maxime, that when an effect may be produc'd by fundry causes, none of them is the true cause; since we cannot from such an effect proceed to the knowledge of its cause. Now Divination is not taken here, as *Hippocrates* speaks of it in his Prognosticks, when he saith, that nothing is makes Physitians more resemble Gods, then the fore-telling of what will befall, and hath already befallen their Patients. For there he speaks of the predictions of Physick; but here to divine, is to affirm an event whereof we see not any cause or probable sign. For if by seeing a Rain-bow I prognosticate rain, or that a tree will bear fruit when it is well blossom'd, or that a sick person that rests ill the night before the seventh day will have a Crisis, this is not Divination. But if, not knowing a prisoner nor his affairs, I fore-tell that he will be set at liberty or not; that an unknown person will be married, and how many Children he will have, or such other things which have no necessary, nor yet contingent causes known to me; this is properly to Divine. Whereby it appears, that there is no Art of Divination: Art being a body of precepts tending to some profitable end; whereas were Divination certain, it would cause nothing but either despair or negligence; and precepts being of things hapning necessarily or most commonly; that whose cause we know not cannot be known by precepts. And therefore all your Soothsayers, Augurs, Sorcerers, Fortune-tellers, and the like, are but so many Impostors.

II.  
Whether  
there be any  
Art of Divi-  
nation.

The Second said, That Divination, which is a prediction of



future things remote from our knowledge, is of three sorts. Either from God, as *Prophecy*; from Devils, as *Conjuring*; or from causes purely natural, which is Prognostication or *Conjecture*. Prophecy is a divine inspiration, whereby one fore-sees and declares remote things infallibly. 'Twas exercis'd at first by the Priests of the Law, with the *Urim* and *Thummim*, which were twelve precious stones in the high Priests *Ephod*; and afterwards by the Prophets instructed in dreams or visions, whence they were call'd seers. Diabolical Divination depends upon some compact; either tacite or expresse, with the Devil; who being able to declare such things as have appear'd by some outward act, as the authors of robberies, things lost, or such futurities as depend on natural and necessary causes, but not such as proceed from causes purely free or contingent; the Soothsayers his servants can know no more concerning the same then their Master. This Divination is of two sorts. The first is call'd *Dæmonomancy*, when the Devils themselves give answers out of Caves or Images; sometimes by beasts, men, or most frequently by women, rendring oracles by their mouths, stomacks, or bellies, but for the most part ambiguous and doubtful, for fear of being mistaken. The other is call'd *Mangania*, or *Goetia*, the most detestable species of which is *Necromancy*, which draws answers from the mouths of the dead. Others, more remarkable, are, 1. *Hydromancy*, or Divination by water, into which they pour drops of oyle, or cast three little stones, observing the sections of the circles which they describe. 2. *Lecanomancy*, by a basin of water, at the bottom of which the answers are heard, after casting thereinto some plates of Gold and Silver, and precious stones, engraven with certain characters. 3. *Gastromancy*, by glass bottles full of water, in which a big-belly'd woman, or an innocent child, beholds images. 4. *Catoptromancy*, by Looking-glasses. 5. *Crystallomancy*, by crystal cylinders. 6. *Dactylomancy*, by enchanted Rings, like that of *Gyges*. 7. *Onychomancy*, by anointing the nail of a child with oyle or tallow, and holding it towards the Sun they see in it what they demand. 8. *Aeromancy*, by conjurations of the Air. 9. *Coscinomancy*, by a sieve, and fizzars. All which species of Divination presume either an expresse or tacite compact with the Devil. But there were three without compact, 1. *Aruspices*, who drew conjectures from the entrails and motions of beasts sacrificed, from the figures made by melted wax cast into water, call'd *Ceromantie*, or *Daphnomancy*, from the crackling of burning Lawrel, *Omphalomancy*, when by the knots and adhering to the navil and secundines, the Mid-wives fore-tell how many Children the new deliver'd woman shall have afterwards. *Amniomancy*, fore-telling the Childs fortune from the red or livid colour of the coat *Amnios*. *Parthenomancy*, to discover Virginity by measuring the neck, or drinking powder'd Agat, which she that is no Virgin vomits up again. 2. *Augures*, or Auspices who divin'd from birds,



birds, beasts, prodigies, and accidents, as *Pliny* reports of the *Servilii*, that they had a piece of brass money which they fed with Gold and Silver, and it increas'd when any good was to befall their Family, and diminish'd upon some approaching evil.

3. Unlawful Lots are *Cleromancy*, which comprehends *Homer* and *Virgil's* Lots. *Alectromancy*, by a Cock eating corns of wheat lay'd upon the Letters of the Alphabet. *Oniomancy*, by names; *Arithmancy*, by numbers. Lastly, Natural Divination, which is Conjecture, either taken from the Stars, as Judiciary Astrology; the Air, and its several dispositions; the Sea, and Trees, as when a Plague is fore-told by the flourishing of Roses or Violets in Autumn. Animals also supply some presages, as Mice running away from an house presignifie its downfall or burning; and Sparrows delinquishing a Country denote the Pestilence and infection of the Air.

The Third said, That the Soul, being immortal, is also capable of knowing things after the manner of eternity, which being a total and simultaneous possession of endless life, knows all things at once, things future and past as present; which knowledge is like that of a man who beholds a whole Army at the same time from the top of a Mountain; and that of time, in which things are seen successively, is like that of him who through a hole sees every Souldier of his Army pass by one after another. Wherefore 'tis no wonder if men who affect nothing so much as eternity, and to be like God, desire to know things as God doth, to whom the future is present. Moreover, this inclination being natural to all persons, they must have a power to exercise it in this life, lest it be in vain. Which is done principally when the Soul is loosned from the Body, as in sleep, extasie, deep contemplation, and the agonies of death, in which dying persons commonly foretell things to come.

## CONFERENCE LXXXI.

### I. Of Chiromancy. II. Which is the noblest part of the Body.

Chiromancy is Divination by inspection of the hand, and consideration of its substance, quantity, quality, and other accidents, whereby the same affords indications of things past or to come. It was practis'd by *Sylla* and *Cæsar*, this latter having by it discover'd the false *Alexander*, who pretended himself *Herod's* Son, from the true. And an old Chiromancer of *Albert* of *Mirandola*, Cousin to the great *Picus*, fore-told the Duke of *Nevers*, Nephew to *Lewis XII.* being at *Carpi* in *Italy*, ready to fight with the Vice-roy of *Naples*, that he should win the battle

I.  
Of Chiro-  
mancy.



battle, but lose his own life, as it came to pass. So *Paulus Jovius* relates, that *Antiochus Tibertus* of *Cesena*, by this means, advertis'd *Guido Balneo* of the death which befell him by one of his familiars; and that *Horatius Cocles* fore-told *Lucas Gauricus* that he should be put to death by *John Bontivoglio* Prince of *Bononia*. Many having seen Criminals lead to the gallows have observ'd that the two extremes of the line upon the last joynt of the thumb terminated at the root of the nail, which is taken for the sign of the halter; as when this line reaches not the nail, but on one side, it presages onely danger of hanging. Now as diversity of outward shapes distinguishes species, so it doth also individuals, especially that of the hand, the instrument of every one's fortune, and the most temperate part of the Body; whence the hollow of it is accounted the organ of Touching.

The Second said, That the hand, the subject of Chiromancy, is compos'd, as all other organical parts, of three dissimular parts, the wrist, palm, and fingers. In the palm the Chiromancers consider the lines and eminences or hills. The lines are those parts which variously divide the hand, the five chief of which are, the line of the wrist, the line of life, the natural mean, the liver-line, and the table-line. The wrist-line is that which divides the hand from the arm, and is commonly double, sometimes trebble and quadruple. The line of life, or of the heart, begins at the bottom of the tumour under the fore-finger, and ends at the wrist-line, having sometimes another line parallel, call'd the sister of the line of life. The natural mean, or line of the head, begins near the line of life under the fore-finger, and passes over-thwart the hand to the hill of the Moon, or pommel of the hand, which line is thwarted by another, call'd the liver or stomach-line; and these two lines, with the line of life, form a triangle, whose base is the liver line, call'd the triangle of *Mars*; which appears not in their hands whose middle line terminates at the table line, or line of fortune, which begins under the hill of *Mercury*, at the bottom of the little finger, and ends under the fore-finger with one, two, or three branches. 'Tis call'd the table line, because the space between it and the middle line represents the table; whence 'tis call'd the table of the hand, and line of fortune, because it affords the certainest tokens of good or bad fortune. The hills or risings of the hand are seven, according to the Planets to which they are attributed, namely, the mount of *Venus*, under the thumb, indicating Love; the mount of *Jupiter*, under the fore-finger for Honours; that of *Saturn*, under the third, or middle finger, for felicities or misfortunes; that of the *Sun*, under the fourth, or ring-finger, for Riches; that of *Mercury*, under the little finger, for Arts and Sciences; that of the *Moon*, which is in the pommel of the hand, for afflictions and maladies of the mind; lastly, the mount of *Mars* in the foresaid triangle, compriz'd under the lines of life, the middle line, and the liver line, denotes war-like exploits. And because the four  
principal



principal fingers have twelve joynts which make as many sinuosities; therefore the Chiromancers attribute to each of them a sign of the Zodiack; and to each finger a season of the year; as to the fore-finger the Spring, and to its three joynts the three signes of that season, assigning the uppermost joynt to *Aries*, &c. By which signes 'tis known in what moneths the effects fore-told by the lines of the hand will happen.

The Third said, That Chiromancy is a Conjectural Art, not founded upon indubitable principles of eternal truth, but upon many experiences, from which the general precepts of this Art are deduc'd. The chief whereof are, that the rectitude, continuity, and lively colour of the lines, and the eminence of the mounts are good signes, as also the branching of these lines upwards towards the mounts of the fingers; on the contrary, their obliquity, intersection, livid or blackish colour, and branching downwards, are of ill augury. The wideness of the table, and the angles of the triangle of *Mars* well shap'd, denote good. Many lines cutting the chief which are in the palm of the hand, shew a man intangled in affairs. The lines of the wrist signifie that the person is to live so many times twenty years. A double line of life is a sign of one very fortunate. The lines which cross it are so many misfortunes, and their breaking shews death or dangerous sickness. One *o* in it denotes the loss of an Eye, and two *oo* total blindness, which *Johannes de Indagine* saith he found true in many, and by his own experience. Crooked lines upon the table line threaten water. 'Tis an ill sign, when one of the chief lines, especially the table line, is wanting; and when it hath incisions, 'tis a mark of various fortune. Lines between the table line and middle line are so many diseases, but not mortal. And infinite such other rules. The nails also are consider'd by the Chiromancers, as to their colour, shape, largeness, and little spots, among which the round and white denote friends, the others ill-willers.

The Fourth said, That 'tis requisite to prediction by the hands that nothing be on them but what is natural. And if the lines of one hand suffice not, recourse must be had to the other; and if both agree, the effects signifi'd by them are less doubtful. When they differ, these of the left hand are chiefly taken notice of, both because 'tis nearest the heart, and because 'tis less disfigur'd by working. Yet 'tis to be remember'd, that as one sign evidences not the constitution, and few diseases have one certain pathognomonical sign, so neither is an effect to be infer'd from one line so and so, but from many together; although they are commonly fallacious too, unless the inclinations likewise be known by Physiognomy and Astrology.

The Fifth said, All effects are either natural or free; those come from a necessary and infallible, which hath no affinity with the lines of the hand erroneously alledg'd to signifie the same; and these being from the Will cannot be caus'd by a concurrence



rence of lines, differing either fortuitously, or according to the various situations of the bones, or several foldings of the child's hands in his mothers belly, or by different exercises, and variety of Climates; they of hot Countries having scorch'd skins, and more lines otherwise configurated then Northern people; and Artisans, then Courtiers and idle people. And so there would need different rules of Palmistry, according to Countries and qualities, which is absurd. The truth is, if any thing may be conjectur'd, 'tis from the parts, which contribute something to what they are signes of. So a large fore-head may be the note of good capacity, because it shews that the Ventricles of the Brain are large; and a bony and sinewy man is with reason judg'd strong. But the hand can afford no indication, if you except its largeness or thickness, by proportion of which, with the other parts that are not seen, one may judge of its strength. 'Tis therefore a fallacious Art which takes that for a cause and a sign which is nothing lesse.

The sixth said, Chiromancy is of two sorts, Physical or Astrological. The former is groundd upon the same principles with Physiognomy, and is a part of it, discovering by the several accidents of the hand its own temper with that of the whole body, and consequently, the manners and inclinations. Hence the Chiromancers affirm, with great probability, that those that have thick hands have the other parts which are unseen alike, and consequently, a dull wit; and so on the contrary. But that which is purely Astrological, and is founded upon imaginary principles, seems not only faulty, but very ridiculous, yea, and pernicious too; and therefore is prohibited by Laws both Humane and Divine.

II. Upon the Second Point 'twas said, That man's body being a structure compos'd of many parts, not onely similiary, as in plants and stones, but organical, destinated to each action, which being their end, will also be the measure and standard of their nobleness; as Officers and Ministers of State or Family are esteem'd according to their imployment. Now an Animals noblest action is Life; and therefore the Heart, the author thereof, and source of heat and spirits, is the noblest of all parts. Moreover, *Aristotle* sayes, it lives first and dyes last, and is in the little world what the Sun is in the great, imparting light and motion to all the parts of the body, as the Heavens do to all sublunary things. Therefore many Animals want other parts, but none a heart, which is so absolutely necessary that its least wound is mortall.

The Second said, Whether Nobility betaken from Antiquity or necessity, the Liver is the noblest of all. For the Animal at first lives the life of a Plant, and so needed nourishment first, the supplying of which, being the Livers office, it is therefore form'd before any of the entrails. Nor could we exercise our senses



senses or reasonable actions, if we were not nourish'd; the functions of all faculties ceasing as soon as the Livers provision is spent. Yea, no animal action can be perform'd without spirits, the matter of which is blood elaborated in the Liver. Which as 'tis the cause of the four humours, and consequently, of Health or Sicknesse; so 'tis the seat of Love, the noblest of all the passions.

The Third said, As much nobler as the species is then the Individual comprehended under it, so much are the parts serving to its conservation nobler then others which conserve onely the particular. Therefore *Galen* reckons them among the principal parts. They serve to enliven the body, whose temper, colour, beauty, voice, and other qualities, their deprivation not only destroys, but also changes the manners of the Mind, and extinguishes Courage, as appears in cocks when castrated. Add hereunto, that they are hardest to be tam'd, and therefore most noble.

The Fourth said, That Generation being common to men, not onely with beasts, but also with plants, being an action of the natural faculty, it cannot be the noblest action of man; but rather the Understanding, which being exercis'd in the brain, the seat of the Rational Soul, this without dispute is the noblest of all; whence 'tis call'd Heaven by *Homer*, a divine member by *Plato*, and generally accounted the mansion of wisdom, and temple of divinity, which appears chiefly in the structure of its *rete mirabile*, labyrinth, and ventricles. Moreover, all the parts were made for the brain. For man was born to understand, and the intellectual faculty holds its seat in the brain. To understand well, it needed phantasmes and species, which were to be receiv'd by the senses plac'd for that purpose in the head: and to judge of the diversity of sensible objects, it ought to have local motion; and, in order thereunto, muscles, tendons, nerves, and bones. These actions of the Understanding are perform'd by help of the Animal Spirits, the matter whereof are the vital of the Heart, as the matter of these are the natural; whence learned men are commonly lean and unhealthy, because their natural spirits go to the brain, instead of being carry'd to the parts, in order to nutrition.

The Fifth said, That (to omit *Æsop's* opinion, who prefer'd the tongue before any other part, and found it most powerful to do either good or evil) the hand seem'd to him as much more excellent then the brain, as the active is to be estimated above the contemplative. Therefore *Aristotle* calls it the Organ of Organs, and 'tis the symbol of faith, strength, and civility; whence remain still the termes of kissing the hands.



## CONFERENCE LXXXII.

I. *Which is most powerful, Art or Nature.* II. *Whether Wine is most to be temper'd in Winter, or in Summer.*

I.  
*Which is  
most power-  
ful, Art or  
Nature.*

THE power of Nature and Art cannot be better judg'd then by their opposition; yet how should any be between them, whilst Art can do nothing without Nature? For if the hand be off of Industry, 'twas Nature that made it a hand. If the Sword be valued for the Art which fashion'd it, and brought it into a condition to give Law to him that hath none; 'tis to the Iron produc'd by Nature in the Mines that it owes its matter. And thus making the same induction through all disciplines, 'twill be found that they cannot be imagin'd without Nature; not Logick, without natural reason; nor Grammar, without speech; nor Speech, without a tongue; nor writing, without ink and paper; nor these without the matter whereof they are made, no more then a building without stones, mortar, or other materials. Therefore when Art offers to compare with Nature, 'tis as if a child upon a Gyant's neck should therefore think it self taller then he; whereas it hath no advantage but what it borrows from the Gyant which upholds it.

The Second said, That actions being the rule whereby to measure the excellence of the Agents, and being themselves determin'd by their end, which alone sets value upon them; Nature is therefore more excellent then Art in that it hath a nobler end in its actions, and ordinarily attains the same which Art can never do. For Nature, as the internal principle of motion and rest of that wherein it is, produces all substantial forms, and is the cause of all generations and natural motions; in the continual revolution of which is seen an unparallel'd order, illustriously testifying the wisdom of Nature who governs them, and who never fails to produce a plant or an animal when the matter is rightly dispos'd. Whereas Art is only an external cause, giving nothing but shape and outward shew to its works, which indeed in some manner imitate those of Nature, which is the end of Art, but are never so perfect, no Painter having ever made a bunch of grapes, or a man, so well as Nature, because he represents only the surface and some few other external accidents, but is far from being able to express the essence and substantial forms of these natural bodies which it attempts to imitate. Moreover, Nature frames all parts of her works together (as in the formation of man) though grossly and in a small volume, and afterwards makes the same augment and move together; but Art makes the parts of its work successively, the foundation



on before the walls, these before the roof, the rough hewing before the last hand; and motion excited by artifice is violent, yea more in some parts of the Engine then in others.

The Third said, That to doubt whether Art be more powerful then Nature, is to doubt whether two be more then one, or three then two. For Art presupposes Nature perfected. And as that is the strongest animal which can bring others under its laws, so being Art always subdues Nature, it must be the more potent. Our nature is inclin'd to evil, but the precepts of Divinity, yea, and of moral Philosophy too, have no other aim but to correct its defects, and overcome its perverseness, both which are so happily effected, that not only *S. Paul* professes, *I live, yet not I, but Christ in me*; but also the most excellent Physiognomist was mistaken in his judgement of *Socrates* from his aspect. Nature leads man to follow his brutish and sensual appetite, and to make use of every thing which complies therewith; but Art coming to rectifie it civilizes him, and teaches him to restrain his concupiscences, to fast rather, for conscience or health, then incur eternal damnation in the other life, and diseases in this. And experience shews how far Art gets the mastery of Nature, when a little man dextrous at his weapons easily overcomes a stronger who hath onely the help of nature. The horse, dog, birds of prey, and other animals capable of discipline, do every thing which man teaches them much better, then they would do of themselves. Compare but the discourse of an ignorant with that of a learned person, the carriage of a Clown with that of a Courtier, the heaviness of a strong Lubber with the dexterity of a practis'd Champion. In the Mechanics, a Child with an artificial Screw will lift up a greater burden then two Oxen can carry, and these two Oxen will draw a load by the common artifice of Carts, which ten other Oxen cannot bear upon their backs. An Army of 20000 naked Savages hath been often defeated by 200 men arm'd with Swords and Arquebushes. In brief, compare the weakness of all things at their beginning, and before time has brought them to perfection by a series of new precepts, whereof Arts are composed; and you will see that Art as much surpasses Nature as Bread doth Acorns, or Wheat it self, before Art hath fitted it to our use.

The Fourth said, That duration is the measure of every thing's excellence; whence the Proverb teaches us to consider the end. Bubbles of water and sope blown into the air look very handsome; wait but a little and they are nothing. So are all artificial things compar'd to natural. As this gave them beginning, so it sees them end, overcomes and survives them; that a thing perishes it hath from art; that it lasts more or less, it hath from nature; as writing engraven in Marble is of longer continuance then that which is trac'd upon sand, and yet 'tis one and the same writing. But sooner or later, every thing re-



turns to its first principles; and what was borrow'd of nature must be paid back to her again. We raise palaces up to the clouds; Nature endures it with some violence, their gravity resisting the most it can, till at length she seems to yield, and to be tam'd by art. But inquire news of them in future ages, and they will tell you that Nature never rests till she hath return'd that to the ground which was taken out of it, and this without Tools or Instruments. Art squares trees which were round, whence a Spartan Lady ask'd, whether trees grew square: leave them to the air, they become round, their corners rotting first of all. Physicians observe, that simple medicaments, as the most natural, are the most effectual, and such as have least artifice are most active. Whence the most expert laugh at that hotch-potch of herbs, and other ingredients, wherewith quack-salvers fill their receipts, acknowledging that the more you have in compounding a medicine, the lesse intentions you obtain the same, one quality resisting and abating the edge of another. And, in removing of diseases, they hold for a Maxime, that 'tis Nature alone which do's the cure. Moreover, the birth of a child is a pure work of Nature, and she that leaves her to do the business is the most expert to bring Women to bed. In brief, all good Crises must be natural, every thing that is artificial is directly contrary thereunto. What adoptive Son hath so tender an affection to his parents as a natural one? or what nurse suckles anothers with so good a heart as her own child? which was the reason of the Gardiner to the Philosopher, who ask'd him, why bad herbs grew better of themselves, then others transplanted, and cultivated by Art. When we would signifie an honest man, we say he is of a good nature; when a knave, that he is full of artifice. Men may disguise their manners and inclinations, but cannot dissemble Nature; a sanguine, cholerick, or melancholy person, alwayes discover their nature through all the artifices and hypocrisies of art. Preach to an intemperate, ambitious, or otherwise tainted with some vice as natural to him as to the lame to halt, he will possibly restrain himself for some time, but presently return to his first habit.

The Fifth said, Nature being taken for every thing compounded of matter and form, and Art for Humane Wit, which applies them to its own use, this must be so much more excellent then that, as it gives perfection to the same, by introduction of an artificial form besides its natural. Marble, of no price in the mine, yet turn'd into the statue of an old woman becomes highly valuable. The Dragon in the Tapistry is as agreeable to behold as the natural one would be terrible. And even of things profitable, a dish of fruits well drawn is more esteem'd then a hundred natural. And who prizes not a Table, Cabinet, or other moveables, more then so much wood, a glasse then the ashes it is made of. 'Twere to accuse all Antiquity of error, and unprofitably inventing and increasing Arts, to prefer the rude-

ness



ness and simplicity of Nature before them ; which teaching us from the birth to defend our selves by arts against all defects of the body, therefore tacitely yields them the preheminance.

The sixth said, That the meanness and imperfection of the matter sets off the excellence of the workman, when his work borrows all its nobleness from its form which he gives it, and not from its matter. Hence God, the most perfect of all Agents, needed no matter wherewith to make all his works ; Nothing being a sufficient material object of his Omnipotence. Nature, a subordinate and less perfect Agent than God, makes all her works of the First Matter, which is not a pure nothing ; nor yet a perfect Entity, but an Entity in power, and as *Aristotle* saith, almost nothing. But Art can make nothing but by the help of natural and perfect bodies, compos'd of matter and form, which it only divides or conjoins ; as when the Architect builds a House he joynes many stones, pieces of wood, and other perfect bodies together ; and the Statuary pares off the gross pieces of Marble till he brings forth the resemblance of what he would represent. Wherefore as much as God is above Nature, so much is Nature above Art.

Upon the Second Poynt 'twas said, They who impute most diseases to the use of Wine, because the Eastern people who use it not are, free or less troubled with maladies, will conclude (as he did who marri'd a very little Woman, as the least Evil) that Wine most qualifid is best, in case it cannot be wholly let alone. But the Question will still remain, in which season, Winter or Summer, it is most to be mix'd. Now there being less heat, and more humidity in the body during Winter, by reason of the outward cold, and closing of the pores, it seems that Wine should be taken unmixt in this season. For being heat consists in a proportion of the qualities, that which exceeds must be corrected by its contrary, and the weak strengthened ; as they that would walk upright on a rope, must turn their counterpoize to the side opposite to that whereunto they incline.

The Second said, That in Summer the Wine should be more temper'd, because then the natural heat is least, as Caves are cold in Summer and hot in Winter. Whence *Hippocrates* said, that the bowels are hotter in Winter and Spring, whence people have then better stomachs ; the capacities being enlarged by the dilatation of heat, and sleep likewise longer, through the abundance of vapours rising from the blood, which is made in greater quantity when the natural is strong than when it is weak. Moreover, bodies are more healthy in cold weather than in hot, which causing great dissipation of heat and spirits, the losse cannot be better repair'd than by unmixt Wine, whose actual coldness being overcome by our Nature, its potential heat is reduc'd into act, and fortifies ours, adding also its volatile spirits to our spirits, as old regiments are recruited by new levies.

II.  
Whether  
Wine is most  
to be temper'd  
in Winter or  
in Summer.

The



The Third said, That the best food being assimilated and least excrementitious, as Wine is in all seasons, it ought not to be mix'd either in Summer or Winter, aqueous Wine making many ferous excrements which cause obstructions; whereas pure Wine is good in Winter to assist the natural heat, assaulted by the outward cold, and to digest the crudities commonly generated during this season; and in Summer to support the languishing spirits by supplying new matter. But if the necessity of a hot distemper require mixture of water, I would have it pour'd into the wine two hours before it be drunk, that so fermentation may in some measure turn the water into the nature of the wine, and the encounter of these two enemies may be rather in a strange Country than in ours.

The Fourth said, 'Twas not without mystery that the Poets feign'd *Bacchus* new come forth out of *Jupiter's* thigh with an inflam'd countenance, to have been deliver'd to the Nymphs to wash him, and that the seven *Pleiades*, whose rising denounces rain, had the principal charge of him; and that the Mythologists represent this God of Wine follow'd by a company of mischievous demons call'd *Cabals*, the chief of which they name *Acrat*, which signifies pure wine; hereby intimating the disorders it causes when its fumes are not abated with water. Moreover, when *Amphyction*, King of *Athens*, had first put water into his wine, and every one by his example, a Temple was built in the City to *Bacchus* erect or standing; intimating that as mere wine causes reeling, so temper'd makes one walk upright. The truth is, unmix'd wine is always dangerous, filling the brain with hot and pungent vapours, which water allays and gives a temper to, suitable to our natural heat, which is mild and gentle; whereas these spirits are of themselves igneous, as the burning of *Aqua-vitæ* testifies. But 'tis less hurtful to drink pure wine in Winter than in Summer, when the natural heat being igneous and encreas'd by the outward would turn into a distemper by the adventitious heat of wine, which, on the contrary, in Winter counter-checks the outward coldness of the air.

The Fifth said, If we believe the Poet *Orpheus*, who advises to drink unmix'd wine twenty days before the rising of the Dog-star, and as many after, then wine must not be temper'd in Summer; a custom practis'd still in *Italy*, where in the heats of Summers they drink the strongest and most delicious wines without water. Moreover, people eating less in this hot season should therefore drink the more pure wine, as more nourishing. Besides that the aqueous crudities of fruits eaten in Summer is corrected by the heat of wine.

The Sixth said, That regard is herein to be had to every one's constitution; phlegmatick, old men, and such as have cold stomachs, may drink wine without water, as also those that have *Fames Canina*: but the cholerick and young must temper it, if they do



do not wholly abstain, yet always having regard to custom, and the nature of wines ; amongst which, if we believe the Germans, their wine cannot endure water, no more then the water of the Island of *Tenos* can endure wine.

CONFERENCE LXXXIII.

I. Of Baths. II. Whether the Wife hath more love for her Husband, or the Husband for his Wife.

I. Of Baths.  
**T**Is not in vain that Physicians examine the nature of the places wherein man's body is contain'd. For the ambient air, water, or earth (as in Dropsies) hath great influence upon the same. Now Baths are either total, for the whole body, or partial, for some members, such as the Half-bath, where the head, breast, and arms, are remaining out of the water ; fomentations, pumpings, and the like. This Bath was in such request among the Romans, that their Emperors were at great care and charge in building them, not only at *Rome*, but even in this City of *Paris*, where the Emperor *Julian* made one. Its benefits are great when us'd in due time and place, and its effects different according to its divers composition. For it always moistens, more or less ; but it heats, cools or tempers, according as 'tis hot, cold, or temperate. It opens the pores, by removing the scurfe which stop'd them, and dilating them by its heat, whereby it insinuates into the inward parts, especially the muscles, which by this means it swells up, and by colliquating the humour corrects their dryness, and repairs the emptiness introduc'd thereinto by lassitude. Whence us'd moderately it takes away weariness, and repairs strength ; but continu'd too long, and being hot, it draws forth the strength of the party too much, and causes faintings ; a cold Bath cools the parts it touches, but by accident and consequence heats them, by obstructing the pores and passages of the spirits. Hence they that come out of this Bath are very hungry ; and *Hippocrates* saith, that the Convulsion is cur'd by casting cold water upon the shoulders, which moves nature to expell its enemy. So in fainting nothing recovers the spirits and revives the heart more then cold water cast on the face where the skin is thinnest, and the spirits abound most.

The Second said, That those at *Rome* anciently pass'd through three places. In the first, where the air was well warm'd, like the Stoves of *Germany*, they put off their clothes. In the second, a little more heated by fire underneath or on the sides, they sweat ; the water which steam'd from the heated vessels



vessels sticking to their naked bodies, and being thence gently wip'd off, all the filth was brought off with Curry-combs of Ivory. Here also they were anointed with Oyle, either before the Bath of warm water (when they would not relax the pores, nor evaporate the spirits, as in those that newly recover a sickness, or are exhausted by labour) or after the Bath, to hinder the sweat which follows. For the oyl stops the pores of the skin, and so hinders transpiration. In the third place was the water luke-warm, or something more, where they bath'd themselves, afterwards plung'd into cold water or a little less hot, which was on the side of the same place, to fortifie the relaxed members. Lastly, they return'd to the second place, there to sweat and be rub'd, repassing by the first, to avoid the sudden mutation from hot air to cold; the danger of which *Alexander* found when being too hot he went into a river, falling into shiverings and convulsions, wherewith he had perish'd had it not been for his Physician *Philip*. Whereby it appears that a Bath profits or hurts, according as it is well or ill administred, and that our wise Ancestors were more circumspect in it then we; which possibly is the cause why it was in so frequent use, that *Galen* speaks of divers of his time who commonly bath'd themselves twice a day; the good which we receive from any thing being the inducement to the frequent practice of it.

The Third said, That unless upon urgent necessity and a medicinal account, bathing is not only superfluous but very hurtful to men. For besides that 'tis unnatural (not water but air being man's element) it opens the body, and makes it susceptible of any bad qualities of the air; for which reason 'tis forbidden in time of pestilence. For as Oke lasts longer then Fig-tree, because 'tis more solid, so soft bodies are more unhealthy and short-liv'd then firme, as those of peasants are, who arrive to ages, without experience of any of those delicacies. For so many conditions are requisite to a Bath, that 'tis commonly more hurtful then profitable. It must be vari'd according to the diversity of seasons, and complexions, which *Galen* confesses he understood not. And one and the same day will be of different temper, as it happens in Autumn; so that one and the same Bath will be proper and not proper. Besides, 'tis prescrib'd to be as hot as milk from the Cow, which it cannot be for two moments, but is immediately alter'd by the ambient air. If it be said that the body suffers well the same variations of the air. I answer that it is not expos'd naked to the air, whose excessive qualities are abated by our clothes. Otherwise, every one would be inconvenienc'd therewith, unless he were accusom'd to it from his birth, as the Savages are. Besides, the air adheres not to the skin, and so makes but a transient impression. It must be us'd after digestion, & we know not when this is ended; the body being purg'd, which it seldom is as it ought; otherwise it excites fluxions in such as are full-bodied, and subject to catarrhs. It fills the head  
with



with vapours; it relaxes the nerves and ligaments, so that some have never felt the Gout but after bathing. It kills the infant in the womb, even when it is too hot. 'Tis an enemy to those that have Tetters or Erysipelas, to fat and full bodi'd persons, and generally to all that are not accusom'd to it; as if this element were not innocent, but as the most mischievous things are when made familiar by custom. As for bathing in rivers, those that swim therein, as most do, strain themselves more then do's them good, besides the incommodities which they receive from the air whereunto they are expos'd. So that if you add the loss of time to the rich, the charge to the poor, and incommodity to all, you will not wonder that most men abstain from them, and that *Seneca* chose no fitter place to dye in then a Bath.

The Fourth said, That a Bath being one of the things call'd by the Physitians not-natural, that is, whose right or ill use hurts or do's good, no more distinction need be us'd in it then there is in eating, drinking, sleeping, waking, and such other things. But the advantages of a Bath rightly us'd have none equal to them. First it cleanses the body, and gives a man a new skin; opens the pores, to let out the fumes and steams of the vessels, which also are temper'd by the water's sweet and mild quality. It corrects dryness, the enemy of life, which consists in humidity, reducing the same to a just temper; whence lean and hectic persons receive more benefit from it then any others. Moreover, Nature hath provided for other habits and complexions by the various mixtures of mineral-waters, having compos'd hot baths of Salt, Bitumen, Sulphur, and other Minerals, through which they pass; which strengthen the nerves and joynts, cure Palsies, as sea-water doth scabs: But bathing chiefly regards fresh water. It takes away weariness, tempers the heat of weather, causes sleep, and is one of the most innocent pleasures of life. But he that would know all the commodities of it must have try'd what ease it gives in the greatest pains, especially in Colicks of all sorts, whence 'tis call'd Paradise by those that are tormented therewith. Wherefore to take away bathing, is to reject one of the best remedies in Physick, and one of the greatest benefits of life.

The Fifth said, That the Ancients, having not yet the use of linen to free themselves from the soil contracted upon their bodies, chiefly in wrastring and exercising naked upon the sand, were oblig'd to the use of Bathes, which became so easie and of so little cost to the multitude, that they paid but a farthing a time; whence *Seneca* calls the Bath *rem quadrantariam*. And it cost them nothing after *Antoninus Pius* had caus'd a stately Bath to be built for the publick, as *Capitolinus* reports. But at length their use grew into abuse; after women came to bathe themselves with men, the Censors were fain to forbid them, under penalty of Divorce, and loss of Dowry.



II. Upon the second Point, it was said, That the Poet of our time who said, that he would marry his Mistress that so he might love her less, imply'd thereby that we less love what is already obtain'd. But he determines not the Question, who is soonest weary of loving, or who loves most, the Husband or the Wife; where love must be distinguish'd from friendship, being a passion of the Concupiscible appetite tending towards sensible good, apprehended such by the Phancy, whereas friendship is a most perfect vertue leading the will to honest good, known such by the Understanding; the former many times being opposite to the latter, inasmuch as the Passions of the Appetite disturb Reason, and by excess rise up to jealousy; whereas the latter can have no excess; for the more it is excessive the more it deserves the name of friendship. 'Tis therefore necessary that the woman, whose phancy is stronger and intellect less perfect, have more love and less friendship; the husband, on the contrary, more friendship and less love. Which extends also to children, whom the mothers love with more passion and tenderness, but the fathers more solidly; which affection may serve for a proof and evidence of that in question.

The Second said, That the praise of constancy in love is due to man, whose mind is more perfect, and consequently less mutable. And whereas love proceeds from knowledge, it will follow that men who understand more do also love more. And want of affection would be more blameable in the man, then in the woman, as presupposing his defect of judgement in being mistaken in his choice; men usually chusing their wives, and the wives only accepting of the husbands who address to them. For there's great difference between the liberty our will hath to be carried to what object it pleases, and only the turn of approving or rejecting what is offer'd to it. So that the woman who loves not her husband may say, that she was mistaken but in one point, namely, in accepting what she should have refus'd; but the husband in as many as he had objects in the world capable of his friendship. Besides, 'twould be shameful to the husband, the head and master of the family, to be inferior to his wife in the essential point which renders their marriage happy or unfortunate. And *Gracchus's* choosing death that his wife *Cornelia* might live, (having slain the male of two Serpents whom he found together, upon the Augur's assuring him of the said effect, as it came to pass) shews that we want not examples for proof of this truth; as that of *Semiramis*, who having the supream authority committed to her but for one day, caus'd her husband who had granted the same, and been indulgent to her all his life, to be put to death; and the 49 daughters of *Danans*, who all slew their husbands in one night, prove the same.

The Third said, That amity being begotten and encreased by necessity,



necessity, the woman, as the weaker, hath more need of support and protection from the man, and so is more oblig'd to love him; and therefore nature hath providently implanted in her a greater tenderness and inclination to love, because all her happiness depends on her husband's good or ill treatment of her, which is commonly according to her love to him. To which end also the woman is endu'd with beauty and a more delicate body, and consequently more apt to give and receive love than men, whose exercises require a temper more hot and dry, whereby to undergo the travels of life. And if examples be needful, the contest of the Indian wives who should cast her self into her husband's funeral fire, together with whatever most precious thing she hath, in testimony of greatest love, suffices to prove this conclusion; no men having ever been seen to burn for love of their wives. Yea, when anciently one man had abundance of wives (a custom still practis'd amongst the Turks) 'twas impossible for the husband to have as much love for his wives as they had for him, being in all ages contented with one alone, and consecrating to him their whole affection; which the more common it is, is so much the less strong.

# CONFERENCE LXXXIV.

## I. Of Respiration. II. Whether there be any certainty in humane Sciences.

ALTHOUGH our natural heat be of a degree more eminent than the elementary, yet 'tis preserv'd after the same manner, namely, by addition of new matter, and emission of fuliginous vapours, ever resulting from the action of heat upon humidity: both which are done by the means of respiration, which is the attraction of air by the mouth or nostrils into the Lungs, and from thence into the Heart, where the purest part of this air is chang'd into vital spirits, which are also refresh'd and ventilated by it. For though as much goes forth by expiration as is taken in by inspirations, yet the air we breathe is nevertheless turn'd into our spirits; for that which issues forth is not air alone, but 'tis accompani'd with hot gross vapours streaming from the heart, the furnace of our heat. And as respiration is proper to perfect animals, so the imperfect have only transpiration, which is when the same air is attracted by the imperceptible pores of the body. Which is sufficient for animals whose heat is languid, as Insects, the Child in the womb, and hysterical women, in whom also (hereupon) the pulse ceases for a good while. And whereas the air kills fishes when they are long expos'd to it, it cannot serve for the support of

I.  
Of Respiration.



their natural heat which is very small. Wherefore they respire with water which is more natural and familiar to them, causing the same effects in them that the air doth in land-animals.

The Second said, As the aliments ought to be futable to the parts of the body which they nourish, the soft and spongy Lungs attracting the thin bilious blood, the spleen the gross and melancholy; so the spirits of the animal must be repair'd by others proportionate thereunto and of futable matter, for recruiting the continual loss of that spiritual substance, the seat of the natural heat and radical moisture. Wherefore animals which have aqueous spirits, as fishes, repair the same by water which they respire by the mouth, the purest part of which water is turn'd into their spirits, and the more gross omitted by their gills. But land-animals, whose spirits are aerious and more subtile, and whose heat is more sensible, have need of air to serve for futable matter to such spirits, for which end nature ha's given them Lungs. Yet with this difference, that as some fish attract a more subtile and tenuious water, to wit, that of Rivers, and some again a more gross, as those which live in Lakes and Mud: So according as animals have different spirits, some breathe a thin air, as Birds, others more gross, as Men and most Beasts; others an air almost terrestrial and material, as Moles; and amongst those which have only transpiration, flies attract a thin air, and Worms a thick.

The Second said, That our natural heat, being celestial and divine, may indeed be refresh'd by the air, but not fed and supported as the parts of our body are by solid and liquid food. For food must be in some manner like the thing nourish'd, because 'tis to be converted into its substance. Now there's no proportion between the gross and impure air which we breathe, and that celestial and incorporeal substance. Nor can nutrition be effected, unless the part to be nourish'd retain the aliment for some time, to prepare and assimilate it; but, on the contrary, the air attracted by respiration is expell'd as soon as it hath acquir'd heat within, and is become unprofitable to refresh and cool. This respiration is an action purely animal and voluntary, since 'tis in our power to encrease, diminish, or wholly interrupt it, as appears by *Licinius*, *Macer*, and *Coma*, who, by the report of *Valerius Maximus*, kill'd themselves by holding their breath.

The Fourth said, That Respiration being absolutely necessary to life is not subject to the command of the will, but is regulated by nature, because it doth its actions better then all humane deliberations. Nor is it ever weary, as the animal faculty is, whose action is not continual as this of respiration is, even during sleep, which is the cessation of all animal actions, and wherein there is no election or apprehension of objects (a necessary condition to animal actions) yea in the lethargy, apoplexie, and other symptoms, wherein the brain being hurt, the animal actions



actions are interrupted, yet respiration always remains unprejudic'd.

The Fifth said, That respiration is neither purely natural (as concoction and distribution of the blood are; nor yet simply animal, (as speaking and walking are) but partly animal, partly natural, as the retaining or letting go of urine is. 'Tis natural in regard of its end and absolute necessity, and its being instituted for the vital faculty of the heart, which is purely natural; animal and voluntary, inasmuch as 'tis perform'd by means of 65 intercostal muscles, the organs of voluntary motion, whereby it may be made faster or slower.

Upon the second Point 'twas said, That all our knowledge seems to be false. First, on the part of the object, there being but one true of it self, namely God, whom we know not, and cannot know; because to know adequately is to comprehend, and to comprehend is to contain; and the thing contain'd must be less than that which contains it. To know a thing inadequately, is not to know it. Secondly, on the part of our Intellect, which must be made like to what it knows, or rather turn'd into its nature; whence he that thinks of a serious thing becomes serious himself; he that conceives some ridiculous thing laughs without design, and all the longings of Child-bearing-women end where they begun. But 'tis impossible for us to become perfectly like to what we would know. Thirdly, this impossibility proceeds from our manner of knowing, which being by some inference or consequence from what is already known, we can never know any thing, because we know nothing at all when we come into the world. And should we acquire any knowledge, it would be only by our internal and external senses. Both both are fallacious, and consequently, cannot afford certain knowledge. For, as for the external, the eye which seems the surest of all the senses, apprehends things at distance to be less than they really are, a straight stick in the water to be crooked, the Moon to be of the bigness of a Cheese, though 'tis neer that of the Earth; the Sun greater at rising and setting than at noon, the Shore to move and the Ship to stand still, square things to be round at distance, an erect Pillar to be less at the top. Nor is the hearing less subject to mistake, as the Echo, and a Trumpet founded in a valley, makes the sound seem before us when 'tis far behind us. Pronuntiation alters the sense of words; besides, that both these senses are erroneous in the time of their perception, as is seen in felling of woods and thunder. The Smell and Taste, yea the Touch it self, how gross soever it be, are deceiv'd every day in sound persons as well as in sick; and what do our drinkers in rubbing their palates with Salt and Spice but wittingly beguile it, grating the skin thereof that so the wine may punge it more sensibly. But the great fallacy is in the operation of the inward Senses. For the

II.  
*Whether  
there be any  
certainty in  
humane Sci-  
ences.*



the Phancy oftentimes is perswaded that it hears and sees what it doth not; and our reasoning is so weak, that in many disciplines scarce one Demonstration is found, though this alone produceth Science. Wherefore 'twas *Democritus's* opinion that Truth is hidden in a well, that she may not be found by men.

The Second said, That to know, is to understand the cause whereby a thing is, and to be certain that there can be no other but that; the word cause being taken for principle. Therefore when men know by the Senses, by effects, by external accidents, or such other things which are not the cause, they cannot be said to know by Science; which requires that the understanding be fully satisfi'd in its knowledge, wherein if there be any doubt it hath not Science, but Opinion. This scientific knowledge is found in no other discipline but Logick and Geometry, in regard of the certainty of their principles, which are so clear that they are alike known by all, even the most ignorant, who need only understand their terms to assent to their truth. Such as these are; every thing which is said of the Genus is also said of the Species; and what is not said of the Genus, is not said of the Species; which they call *Dictum de omni, & de nullo*. If to equal things you add equal things, the remainder will be equal. And if to unequal things you add unequal things, the remainder will be unequal. For whereas beasts have a natural faculty which is the common sense, or estimative faculty, whereby they judge of the convenience or inconvenience of objects the first time the same are presented to them: Man, beyond this natural power, enabling him to judge of sensible objects, hath a peculiar one, which is the Intellectual, by means whereof he is said to be every thing in power, because it enables him to know every thing, and to judge of the truth or falshood of universal things, which are Principles. And as the eye beholding white or black judges sufficiently what colour it is, without seeking reasons thereof elsewhere then within it self; so the Intellect discerns the truth of principles by it self, without the help of any other faculty, yea without the habit of any Science, because these principles being before the Science whereof they are principles must be more clear and known then it; whence Intelligence is defin'd the habit or knowledge of such first Principles. Thus, ask a Geometrician why the whole is greater then its part, he can give you no other reason but that 'tis a principle known of its own nature.

The Third said, That Geometry, being the knowledge of eternal truths by infallible principles, is most certain. And 'tis an evidence of its certainty that it neither proposes nor demonstrates why a thing is such, but only that it is such. As 'tis propos'd and demonstrated that in the same segment of a circle all the angles are equal, but not why they are so, because 'tis a truth which comes to our knowledge by certain principles, and

pro-



propositions formerly demonstrated, as certain as the principles themselves. Hence this truth is demonstrated, which nevertheless hath not any cause of its existence, as frail and perishing things have; no material being abstracted from all matter; nor efficient, for the agent is not any way consider'd therein; nor formal, an angle being of its own nature only the inclination of lines; nor yet final, this being not made to any intention. In like manner 'tis demonstrated that four numbers or four lines being proportional (that is, when there is such reason of the first to the second, as of the third to the fourth) the square of the two extremes is equal to the square of the two middlemost; but not why 'tis so, this question occurring only in dubious things.

The Fourth said, That knowledge being desir'd by all men, who for this end are endu'd with an Intellect capable of all sorts of notions, it must needs be found in some subjects, otherwise nature should have given us a general desire of a thing which is not. And since there are causes of every thing, there must be a Science of those causes. But the multitude of apparent causes is the reason that we are oftentimes ignorant of the right, and take one for another, the shadow for the body, and appearance for truth. Which argues not that there is no knowledge, but rather few knowing persons. For *Socrates* who said he knew nothing but that he knew nothing; and the *Pyrrhonians* who doubted of every thing had even a knowledge of their ignorance. Moreover, the exact knowledge men have by the senses of particular things necessarily carries them to that of universals, wherein Science consists. As he that often experienc'd in divers persons that *Sena* purg'd their melancholy, acquires of himself this general Notion, that all *Sena* purges melancholy. And, on the contrary, he who understands a general proportion in gross, may of himself apply the same to all particulars; so great a connexion there is between things universal and particular, in which the fruit of Science consists.

The Fifth said, Since all knowledge depends upon another prenotion, which is what they call principles, those which compose the Sciences must also distinguish the same. Wherefore Sciences are to be term'd certain or uncertain according as the pre-existent notions whereupon they are founded are certain or not. Now amongst those principles some are universal, common to all Sciences; as those of Metaphysics; in all things either the affirmative or the negative is true; that which is not hath no propriety. Besides which 'tis necessary to have particular one's proper to the Science, which are true, first, immediate, causes of the Conclusion, preceding and more known than it. The six conditions requisite to principles in order to a demonstration. They must be true, not false; for that which is false exists not; that which exists not cannot be a cause of that which exists, nor consequently a false principle be the cause of a true demon-



demonstration: First, that is not proveable by others: immediate, so conjoyn'd with the attribute that there is nothing between them two to joyn them more neerly: causes of the conclusion, that is, this principle must be the necessary cause of this truth; and consequently precede and be more known then it. As taking this for a principle, that the interposition of an opake body between light and a body illuminated causes a shadow upon this body; we conclude, that as often as the earth is found interpos'd between the Sun, which is the light, and the Moon which is the body illuminated, it will necessarily come to pass that there will be a shadow upon the body of the Moon, which is its Eclipse.

The Sixth said, 'Twas the error of *Socrates*, that observing our Sciences depending on other preceding notions, he apprehended that we learned nothing new, but that Science was nothing but the remembrance of what the soul formerly knew before its being inclos'd in this body: not considering that the knowledge of principles and notions is confus'd and not distinct; and that the knowledge of them in gross is not sufficient to denominate a person knowing; but that we must first draw universal conclusions from them, then apply the same to particulars, without which application those principles would be unprofitable, and not produce any Science. Thus the Divine applies this general principle, that that which is contrary to the Law of God is evil, to particular conclusions, as to murder, theft and perjury. The Physitian, who holds for a Principle that Contraries are cur'd by their Contraries, draws these other conclusions from it, that a cold distemper is cur'd by hot medicaments, a hot by refrigerating; obstruction, by openers; which he applies again to particular subjects. The States-man, from this general Principle, That every thing that disturbs the publick quiet is to be repress'd, concludes that the Seditious are to be punish'd. So, 'tis not enough for a Mathematician to know that equal things added to equal things are likewise equal, unless he apply this universal principle to particular lines, surfaces and bodies. Which is done either by the Synthetical, or by the Analytical way (which nevertheless must be follow'd by the Synthetical.) Now 'tis in the application of these general rules to particulars, that error is committed even in the most certain Sciences.

The Seventh said, That there are few Sciences, because there are few Principles and Propositions demonstrable: as the contingent and the absolute are not. Whence it is that the future is not demonstrable, and hence follows the incertainty of Politicks. Wherefore only necessary Propositions, whereof (the truth is) permanent and eternal are demonstrable; and all these are necessarily demonstrable because they have infallible principles: yet only such of these whose principles are known by men are demonstrable by men. So 'tis certain that the In-

undation



undation of *Nilus*, and the flux and reflux of the Sea are not demonstrable; because men know not, the principles are not known. Whereby it appears how ridiculous they are who undertake to demonstrate every thing.

CONFERENCE LXXXV.

I. *Whether the manners of the Soul follow the temperament of the Body.* II. *Of Sights or Shews.*

THE extream variety of men's actions and manners cannot proceed from the diversity of their souls, which are accounted all equal, but from that of the bodies; wherein according to the various tempers thereof the soul produces that variety of manners. And as, in natural and animal actions, one and the same Soul digests in the stomach, makes blood in the Liver and Veins, sees by the Eyes, and reasons in the Brain; so, likewise, it is sometimes sad, when the melancholy humour predominates in the body; sometimes cheerful, when blood abounds; and sometimes also froward or angry, when the choler is agitated.

The Second said, That the soul being the form, as the body is the matter, it must be the cause of all humane actions; not the body, which receives them, since the soul informs and perfectionates the body, and begets in it the habit which produces the manners and actions. As the horse governs not the rider, but the contrary; and 'tis to the rider that the honour or blame of the course is to be imputed. And were the soul but a quality, as the most prophane have ventur'd to affirm, yet the same privilege must be reserv'd to it which is allow'd to the predominant quality in every compound, which gives it not only the denomination but also the action: as in compound medicaments the most active simple carries the credit from the rest. Besides, if the body and the humours thereof were the author and cause of manners, an ignorant person could never become learned, and a single Lecture of *Xenocrates* had never made a Drunkard cast off his chaplet of flowers, and turn a Philosopher. The examples of many grand personages sufficiently ill furnish'd with graces of the body, evidence what certainty there is in arguing from the out-side of the corporeal structure to the furniture of the soul; and that the signs of malice, remark'd in some, as in *Zoilus*, from his having a red beard, a black mouth, and being lame, and one-ey'd; of *Thersites*, and *Irus*, from their having sharp heads, rather shew the malice or ignorance of such as make these remarks, then prove that these dispositions of body are the true cause of malice; we see people of the same temper,

I.  
*Whether the manners of the Soul follow the temperament of the Body.*



hair, stature, features, and other circumstances, very different in their manners and inclinations. And the same is observ'd in horses. For since the Stars, the most powerful agents, do not constrain, but only incline, certainly the humours cannot do more. True it is, their inclination is so strong, that no less grace of Heaven is needful to resist the same, then strength to retain a man that is rolling down the declivity of a hill: Yet *Socrates* remaining unmov'd by the embraces of a *Curtizan*, whom his Scholars contriv'd into his bed, to try him, although he was naturally very prone to vice, justifies that how hard soever it be to stop the slipping foot when it is once going, yet 'tis not impossible; and therefore the manners of the soul do not always follow the constitution of the body. Not considering the power which the fear of God hath over our wills, the effects whereof I here meddle not with, as being supernatural, since they have sometimes destroy'd all the maxims of nature; witness those that give themselves to be burnt for the faith.

The Third said, That the body must needs contribute to the soul's actions, as being its instrument. But it contributes only what it hath, namely, its temperament, and other proprieties. Therefore 'tis from this temperament that the same are diversifi'd. The soul sees no longer when the eyes are shut or blinded: 'tis wise in a well temper'd brain (not only in a dry, as *Plato*, in his *Timæus*, conceiv'd, because he saw children grow more prudent as their brain was desiccated) 'tis stupid in a too moist brain, and foolish or furious in one inflam'd, as in deliration or madness. 'Tis also forc'd to leave its body when a violent Fever hath so deprav'd the humours thereof that there remains not the temper necessary to its reception. Therefore it follows the temper of the humours. Thus, because we see fire introduc'd into any combustible subject, and extinguish'd when the same is consum'd, we say fire follows combustible matter, and becomes of the same nature, quantity, and other qualities. Moreover, *Hippocrates* saith, Nations are warlike or cowardly, laborious or not, of good or bad nature, according to the diversity of climates and soils they inhabit, which render them diversly temper'd. Hence, in *Asia*, where the air is temperate, and less subject to changes than *Europe* and *Africa*, men are more healthy and handsome, their manners more equal and laudable: on the contrary, in Countries more cold or hot, the inhabitants are either more cruel or more boisterous, more hardy or more timorous; and Mountaineers are more industrious, as, on the contrary, those who live in a fertile soil are commonly more slothful. Hence, amongst the Greeks, the Thebans and all the *Bæotians*, whose Country was rich, and the air very thick, were very dull, and the Athenians very subtle: which was the cause, that 'twas said, people were born Philosophers at *Athens*: on the contrary, 'twas a prodigious thing to see one wise *Anacharsis* among the Scythians. *Hippocrates* addes the seasons too, according



cording to the change whereof men's manners are also found divers. But all these cannot act upon the soul but by the organ of the body, changing its humours, and introducing new qualities into the parts thereof.

The Fourth said, Even sucking children give some tokens to what their constitution inclines them, before the contraction of any habit, vertuous or vicious; some of courage; others of timidity; some of modesty, others of impudence; and as soon as they begin to speak, some are lyers, others love truth. And of two children taught by the same Master, the hardest student is many times a less proficient than the other, who hath a temper proper for learning, and is as inclin'd to it as another is to Merchandize, Mechanicks, Travel, War; or this will be quarrelsome, the other respectful and discreet; one is born to servitude, and the other prefers his liberty before a Kingdom. So that not only the moral actions of the will, but also those of the understanding absolutely depend on the body, the soul being of a spiritual nature which of it self can never produce any sensible effect without the mediation of some body, not so much as exercise its proper actions of Willing and Understanding; both which depend on the phantasms, which are intellectual species fabricated by the agent intellect in the Patient, upon the model of those that were brought by the senses into the imagination: hence, if these be alter'd or deprav'd by the spirits or humours flowing to the brain, reasoning becomes either diminish'd or deprav'd, or else wholly abolish'd, the spirits so confounding these phantasms that the intellect cannot make its reviews, nor compose or divide them in order to elicit its conclusions, and frame its notions. For souls differ only by the spirits, the tenuity and lucidity whereof is proper for contemplation, their abundance makes a man bold, their inflammation renders him frantick, their defect causeth sloth and cowardize: and being design'd to serve equally to the actions of the soul and body they were made of a middle nature between body and spirit; whence they are called spiritual bodies, and are the cause of union between them, and mutual communication of their passions and affections. So the bodies diseases affect the soul, and disturb its operations, the spirits abandoning the brain to succour the grieved parts: the bilious humour in the ventricles of the brain, or a tumour and a Sphacelus cause madness, the blood overheated causeth simple folly accompani'd with laughter; melancholy produceth serious folly. In like manner, the body represents the passions of the soul; fear causeth trembling and paleness, shame, blushing, anger, foaming: and all this by the spirits.

The Fifth said, If manners depended on tempers, virtues might be easily acquir'd by the course of diet; which seems ridiculous. For then the divine faculties of the soul should depend not only upon meats but upon all other things not natural;



which would be to subject the Queen to her servants, to enslave the will and take away its liberty which makes it to be what it is. Besides, Theology cannot consist with this conclusion, which would acquit persons of blame, and lay it upon nature as its author. For he that should commit some evil cholerick action or other sin, could not avoid it, being lead thereunto by the bilious humour produc'd by nature, whereunto 'tis almost impossible to resist, and so he would seem innocent, and unjustly punish'd for what he committed not voluntarily; though without the will there is no sin. Moreover, men would not be variable, but always the same, the bilious always angry, the sanguine ever in love, &c. and yet we see men exercise all sorts of virtues, and capable of all vices. Many beasts have not only the same constitution of brain, but also external shape like that of man, as Apes, (whose bones are so like those of men, that in *Galen's* time Anatomists consider'd only their Sceletons) yea, the same temper, and all internal parts alike, as Swine; and there's little or no difference between the brain of man and a calf; and yet none of these animals have actions like those of men; which being purely spiritual and intellectual must depend upon another cause, the rational soul, whose actions are not any way organical; for then it should be corporeal, because proceeding from the body, and consequently mortal.

II.  
Of Sights or  
Shews.

Upon the second Point 'twas said, That the communication of the ills and goods of the soul and body has put men upon searching what may relieve the languishing strength of either. And as the soul is delighted by bodily pleasures, so it also, in gratitude, returns the like pleasure to the body, by the contentment which it receives in acquiring knowledge, the least laborious of which is that most recreative, as that is which is convey'd by the sight. For the hearing makes us know things only one after another; but the sight shewing them all at once, more fully satisfies our natural desire of knowing. Hence all people, from the highest to the lowest, are so delighted with shews or spectacles, that the Romans kept Actors and Comedians with publick pensions; and *Cicero* publickly commended *Roscius*, who alone had 12000 crowns for a stipend from the Roman people. They employ'd the incomes of the woods about *Rome*, dedicated to their gods, for the maintaining of Theatres, Amphitheatres, Cirques, and other places destinated to shews, wherein the Senators and Knights had the fourteen first ranks or seats; for whose conveniency *Q. Catulus* cover'd the Scene with veils of fine linen; *Lucius* and *Cinna* made a versatile or shifting Scene; *P. Claudius* was the first that adorn'd it with pictures and tables; *C. Antonius* cover'd it with silver; *Murena* made one of pure silver; *Trebonius* one gilded; others, inlay'd with Ivory: *Nero* sprinkled all the place of the Cirque where the horses run, with gold-sand, and cover'd it with veils beset with stars,

in



in form of a sky: *Heliogabalus* made an Euripus of wine at the Circensian plays, in which he caus'd a Naval Battle to be represented; as if the wickedest Princes could not have cover'd their enormities with a more specious liberality or more agreeable to the people. These spectacles were likewise us'd at the funerals of great Princes, and made part of their service of the gods. They divert the great, make the miserable forget their affliction, are the true physick of the soul, the book of the ignorant, and the only way truly to revive the transactions of former ages.

The Second said, Nothing is so destructive to good manners as the frequentation of Theatres and most other spectacles: which is the most dangerous, for that things represented to the eyes make deeper impression in the mind than by any other sense. Which made *Aristotle* advise the prohibiting of Comedies, and *S. Augustin* declare them contrary to piety and honesty. The same is the opinion of all the Fathers, particularly *Tertullian*, who in an express treatise blames all sort of spectacles, as proceeding from the superstition of Paganism, causing troubles and quarrels; yea rendring men capable of all sort of wickedness by the impression of their examples. For the fights of Mimes and Pantomimes are ridiculous; Rope-dancers unprofitable; Farces or Enterludes dangerous, and enemies to purity; Comedy, the least dangerous of all fights, besides loss of time, renders mens minds soft and effeminate, and more susceptible of the passions represented therein; Tragedy is too sad to serve for divertisement to the soul. If you proceed to Gladiators, is any thing more inhumane, and that renders men more barbarous than to see our fellow-men kill one another in cold blood, and expose themselves to wild beasts? and 'tis always a dangerous practise to accustom the eyes to murders and bloody spectacles; nature being easily perverted by custom. Moreover, all these Mimes, Actors, Sword-players, and the like, were always held infamous, and incapable of publick charges; inso-much that the Emperor *Theodosius*, *Arcadius*, and *Honorius*, in *L. 4. C. de Spectaculis Scenicis*, and *Lenonibus*, forbid to defile their sacred images by the society of those people who act upon the Theatre, ranking them with the corrupters of chastity. And the Romans, who practis'd the same more than any Nation, felt the inconvenience of them when the most potent became masters of the Commonwealth, by means of the spectacles wherewith they allur'd the people to their party; as *Julius Cæsar*, who being *Ædile*, and having given Gladiators, Huntings, Sports, Races, and sumptuous Feasts to the people of *Rome*, they created him Chief Pontife, although *Q. Catulus*, and *Servilius Isauricus*, two great personages, were his competitors: which was his first step to Sovereignty; and *Suetonius* observes, that the conflux of people was so numerous, that many, and, amongst the rest, two Senators were smother'd in the throng.

The



The Third said, That Spectacles or Shews are good or bad according to the things which they represent. But absolutely speaking, they ought to be permitted, not only for the diversion of men, but also for the exercising of youth, and animating them to courage by rewards for their fortitude; as the Greeks sometimes appointed Statues, Crowns of gold, Olive, Palm, Smal-lage, and other such guerdons, to those who overcame in Running, Wrastring, *Cæstus* or fighting with Whorlbats, and such exercises, carrying them in a triumphal Charriot to the Town of their Birth; shewing themselves so careful of the Olympick Games, that they committed the charge thereof to the Sicyonians, after *Corinth*, the place where they were formerly celebrated, had been raz'd by the Romans, who transferr'd those Plays into their own City by the perswasion of *Cato*, for the same end of educating their youth. For as profit delights some spirits, so pleasure allures all; and of pleasures none is more innocent and communicable then that of the fight.

## CONFERENCE LXXXVI.

### I. Of the Dog-days. II. Of the Mechanicks.

I.  
Of the Dog-  
days.

THat the Stars act upon sublunary bodies is agreed upon, but not the manner: some holding that they impress some qualities by motion, others by light, others by their influence, others by both together, producing heat by the two first, and other more extraordinary effects by influences. For every thing that is mov'd heats; as also all sort of light united, even that of the Moon, whose rays may be made to burn with glasses as well as those of the Sun. But because natural agents cannot act beyond the natural bounds of their power, therefore heat produc'd of light and motion here below can produce only its like, heat, or such other alteration in inferior bodies, not those strange and irregular changes not only in the temper of the air, but of every other body. As that it is sometimes hotter, and sometimes colder, in the same elevation of the Sun, cannot be attributed to his approach or remotion, or to the incidence of his perpendicular or oblique rays, but it must proceed from the conjunction, opposition, or several aspects of other Stars. Amongst which the *Canicula* or Dog-star hath very extraordinary effects; as to weaken mens bodies, to make dogs run mad, to turn the wine in the vessel, to make the sea boile, to move lakes, to heat the air so much that *Pliny* affirms that Dolphins keep themselves hid during the 30 Dog-days: at which he wonders the more because they can respire neither in the water nor upon the earth, but partly in the air, partly in the water.

More-



Moreover, Experience shews, that the Hyades or Pleiades (stars in the back of the Bull) have such a moist quality that they alwayes cause rain at their rising, which happens in *November*; as *Arcturus* never rises without bringing hail or tempest; the Moon being full, Oysters, Muscles, and the sap of Trees; are so too, and therefore being cut at this time they soon rot; and *Pliny* counsels to cut them during the Dog-dayes, when the heat of the season ha's dry'd up all their aqueous moisture, which is the cause of their corrupting.

The Second said, That the vanity of Astrologers, who have phancy'd monsters and sundry figures in Heaven, and attributed imaginary effects to them, the better to amuse mens minds with some resemblance of the truth, hath also feign'd two dogs there; one less, consisting of two stars; and another of eighteen, the the greatest of which is the brightest in our Hemisphere, and is in the tongue of this Dog, whom the Greeks and Latins call *Sirius*, and ascribe so much power to him, that they conceive his conjunction with the Sun in the East causes the scorching heat of Summer; yea, the people of the Isle of *Cea*, near *Negropont*, as *Cicero* reports, took their presages of the whole year from the rising of this star, determining the same to be rainie, in case this star appear'd obscure and cloudy; and the contrary. But this cannot be true, as well in regard of the great distance of the fix'd stars, which also being of the same substance cannot have contrary qualities; as also by reason of the retrogradation of their sphere, which hath a motion contrary to that of the First Mover, namely, from West to East; which motion, though insensible in few years, yet amounts to much at the end of many Ages. As is justifi'd by the Dog-star, which *Ptolomy* in the tables of his time places at 18. degr. 10. min. of *Gemini*; *Alphonfus*, King of *Castile*, at the 4. degr. of *Cancer*; and now 'tis found at 9. degr. 54. min. according to *Tycho*, and at 9. degr. 30. min. according to *Copernicus*. Whereby it appears, that after many years this star will be in the winter signes, and that at the Creation it was in *Aries* at the Vernal Equinox, and that, consequently, the Dog-dayes will be in the time of the greatest cold. In brief, were there such power in this conjunction, the Dog-dayes would be hot and burning; and yet in some years they are cold and rainie: Which the Astrologers attributing to the severall Aspects of *Saturn*, or other cold stars, see not that by weakning the force of some by others, they subvert all. Wherefore the Dog-star is at present the sign, but not the cause of hot dayes; that is, the hapning of this Constellation in the Summer signes, and its conjunction with the Sun during hot weather, ha's been erroneously believ'd the principal cause thereof, which, in my judgement, is to be sought onely in the continuance of the Suns action during the Spring and half the Summer, whereby the Air is hotter then when he was neerer us. So 'tis hotter at two a clock in the afternoon then at ten in the morning, although the  
Sun



Sun be at the same distance, yea, then at noon, although he be then nearest of all; and we read that an Ambassador of *Presbyter John* dy'd with heat as he landed at *Lisbone*, although the heat be not so great there as in his Country, but of longer continuance. If it rains sometimes during the said season, 'tis by reason of too great attraction of Vapours by the heat of the Sun; as is seen in the torrid Zone, where when the Sun is in the greatest Apogæum it rains continually.

The Second said, That the Longitude of the Dog-star (call'd by the Arabians *Athabor*) is at this day about the 9. degr. of *Cancer*, and its meridional latitude 39. degr. and a half. Now the Ancients observing the greatest heat of the whole year to be commonly when the Sun is at the end of *Cancer* and beginning of *Leo*, and at the same the Dog-star to rise with the Sun, (which the Astronomers call the Cosmical Rising) nam'd those dayes Dog-dayes, which begin with us about the two and twentieth of *July*: whether they believ'd the cause of this heat to be that star assisting the Sun; or else, according to their order of distinguishing seasons before years and moneths were regulated by the course of the Sun, they denoted those dayes by the rising of this star, conceiving that it did not change place any more then the other stars of the Firmament. As not onely the Poets, but also *Hippocrates*, distinguishes the four Seasons of the year by the rising and setting of the Pleiades and Arcturus. And thus the name of the day hath remain'd to these dayes, although the star be not in the same place, following Ages observing that besides the eight motions admitted by the Ancients in the Heavens, namely, of the seven Planets, and the First Mover, there's another peculiar to the starry Heaven, which is finish'd, according to some, in 36000 years, whereby it comes to pass that the Dog-star is no longer in the same place where it was at the first observation of these Dog-dayes. For 'tis about two thousand years since this star arose exactly with the Sun in the dayes which we call Canicular; the heat whereof hath alwayes continu'd; and yet the star hath pass'd forward, and at this day rises not with the Sun till about the eighth of *August*, when the Dog-dayes and strength of heat begins to expire. Since therefore the effect continues, and the pretended cause exists not at that time, as the Astronomical Tables justifie, it follows that it is not the cause of that effect. Wherefore some have conceiv'd, that the star which made the Dog-dayes, was another star, in the little Dog call'd *Procyon*. But this *Procyon* did not rise with the Sun, in the dayes of the Ancients, till about the beginning of *July*, which is three weeks before the Dog-dayes; which consequently cannot be attributed to the fix'd stars, by reason of their particular motion, which causes them to vary situation; the Dog-star by its proper motion proceeding 52. min. every year, which make about 1. degr. in 70. years, 3. degr. in 200. years, and one sign in 2000. Besides, if the stars had any force, the same would be sensible



sensible at their coming to the meridian of the place with the Sun, then when they rise with him, because their greatest strength is when they are under the meridian, being then in their greatest elevation above the Horizon and nearest the Zenith, and consequently, most active as experience shews in the Sun. Therefore the true cause of the heat of Dog-dayes, is, because the Sun being towards the end of *Cancer* and the beginning of *Leo*, we have more causes concurring together to produce heat then in any other season of the year, namely, the elevation of the Sun above the horizon, the length of the days, and shortness of the nights. For then the dayes are not sensibly diminish'd, nor the nights sensibly encreas'd; the Sun hath not yet suffer'd any considerable change in his altitude above the Horizon; but above all the preparation of the earth, which hath been heated during the three moneths of the Spring, and a moneth and half of the Summer, whereby all the aqueous humidity which refrigerates is dissipated, and the heat so far impacted into the earth that the night it self is less cold then in any other season.

The Fourth said, As 'tis absurd to seek in the stars for causes of effects when we see them manifest in the qualities of inferior bodies, and the various concurrence of so many different natural causes: So 'tis stupidity to deny all virtue to those great superior orbs, rejecting wise Antiquity and all the most learned judiciary Astrologers, who ascribe a particular virtue to each star, as to the Dog-star to heat and scorch the Air. Moreover, the Divine Hippocrates, *lib. de Affect. inter Sect. 5.* affirms, that the disease call'd *Typhos* happens commonly in Summer and in these Dog-dayes, because it hath a power to stir the choler through the whole Body. And in his book *De Aere, locis, & aquis*, he adds, that the rising of the stars is diligently to be observ'd, especially that of the Dog-star and some few others, at which times diseases turn into other kinds; for which reason he saith, *Aph. 5. Sect. 4.* That purging is dangerous when the Dog-star rises, and some while before.

The Fifth said, That all purging medicaments being hot, 'tis no wonder if they are carefully to be manag'd during very hot weather, in which there is a great dissipation of the spirits and strength; so that our Bodies, being then languid, cannot be mov'd and agitated without danger. Not that the Dog-star contributes any thing thereunto, but onely the heat of the season caus'd by the Sun, which attracting from the centre to the circumference, and purging from the circumference to the centre, there are made two contrary motions, enemies to Nature; which is the cause that many fall then into fevers and fainting fits.

Upon the Second Point 'twas said, That as the object of the Mathematicks is two-fold, either intellectual or sensible, so there are two sorts of Mathematicks. Some consider their object simply

II.  
Of the Me-  
chanicks.



ply, and abstracted from all kind of matter, namely, Geometry and Arithmetick; others consider it as conjoyn'd to some matter, and they are six, Astrology, Perspective, Geodæsie, Canonick or Musick, the Logistick and the Mechanick Art, which is nothing less then what its name imports, being otherwise the most admirable of all; because it communicates motion, which is the most exquisite effect of Nature. 'Tis divided into Organical, which composes all instruments and engines of war; sordid, which makes utensils necessary to the uses of life; and miraculous, which performs strange and extraordinary things. 'Tis this which makes water ascend in the Pneumaticks, whereof *Hero* writ a Treatise rendring the same melodious, and resembling the singing of birds in the Hydraulicks. It makes use of the four Elements, which are the causes of the motions of engines, as of Fire in Granadoes, Air in Artificial Fountains, both Fire and Air by their compression, which water not admitting, (since we see a vessel full of water can contain nothing more) its violence consists in its gravity when it descends from high places. The Earth is also the cause of motion by its gravity, when 'tis out of *Æquilibrium*, as also of rest when 'tis equally poiz'd, as is seen in weights.

The Second said, The wit of Man could never preserve the dominion given him by God over other creatures without help of the Mechanicks, but by this art he hath brought the most savage and rebellious Animals to his service. Moreover, by help of mechanical inventions the four Elements are his slaves, and as it were at his pay to do his works. Thus we see, by means of the Hydraulicks or engines moving by water, wheels, and pumps, are set continually at work; the Wind is made to turn a Mill, manag'd by the admirable Art of Navigation, or employ'd to other uses by *Æalipila's*; Fire, the noblest of all Elements, becomes the vassal of the meanest Artisans, or serves to delight the sight by the pleasant inventions of some Engineer, or employes its violence to arm our thunders more powerfully then the ancient machines of *Demetrius*. The Earth is the Theatre of all these inventions, and *Archimedes* boasted he could move that too, had he place where to fix his engine. By its means the Sun descends to the Earth, and by the artificial union of his rayes is enabled to effect more then he can do in his own sphere. The curiosity of man hath carry'd him even to Heaven by his Astrological Instrumens; so that nothing is now done in that republick of the stars, but what he knows and keeps in record.

The Third said, That since Arts need Instruments to perform their works, they owe all they can do to the Mechanicks which supply them with utensils and inventions. 'Twas the Mechanicks which furnish'd the Smith with a hammer and an anvil, the Carpenter with a saw and a wedge, the Architect with a rule, the Mason with a square, the Geometrician with a compass, the Astronomer with an astrolabe, the Souldier with sword and musket;



musket ; in brief, they have in a manner given man other hands. Hence came paper, writing, printing, the mariner's box, the gun in these latter ages ; and in the preceding, the *Helepoles*, or take-cities, flying bridges, ambulatory towers, rams, and other engines of war, which gives law to the world. Hence *Archimedes* easily drew a ship to him which all the strength of *Sicily* could not stir, fram'd a heaven of glass in which all the celestial motions were to be seen ; according to which model, the representation of the sphere remains to us at this day. Hence he burnt the Roman ships even in their harbour, defended the City of *Syracuse* for a long time against the Roman Army, conducted by the brave *Marcellus*. And, indeed, I wonder not that this great *Archimedes* was in so high in Reputation. For if men be valued according to their strength, is it not a miracle that one single man by help of mechanicks could lift as much as ten, a hundred, yea, a thousand others ? And his pretension to move the whole Earth, were a poynt given him out of it where to stand, will not seem presumptuous, though the supposition be impossible, to such as know his screw without-end, or of wheels plac'd one above another ; for by addition of new wheels the strength of the same might be so multiply'd, that no humane power could resist it ; yea, a child might by this means displace the whole City of *Paris*, and *France* it self, were it upon a moveable plane. But the greatest wonder is the simplicity of the means, employ'd by this Queen of Arts to produce such excellent effects. For *Aristotle*, who writ a book of mechanicks, assigns no other principles thereof, but the Lever, its Hypomoclon, or Support, and a balance, it being certain that of these three multiply'd, proceed all Machines, both *Automata*, and such as are mov'd by force of wind, fire, water, or animals, as wind-mills, water-mills, horse-mills, a turn-broch by smoak, and as many other inventions as things in the world.

## CONFERENCE LXXXVII.

- I. *Whether the Soul's Immortality is demonstrable by Natural Reasons.* II. *Whether Travel be necessary to an Ingenuous Man.*

NATURAL Philosophy considers natural bodies as they are subject to alteration, and treats not of the Soul but so far as it informs the Body, and either partakes, or is the cause of such alteration. And therefore they are unjust who require this Science to prove supernatural things, as the Soul's Immortality is. Although its admirable effects, the vast extent of its thoughts, even beyond the imaginary spaces, its manner of acting, and vigor in old age, the terrors of future judgement, the satisfaction or

I.  
*Whether the Soul's Immortality is demonstrable by Natural Reasons.*



remorse of Conscience, and Gods Justice, which not punishing all sins in this life presupposes another, are sufficiently valid testimonies thereof; should not the universal consent of heathens themselves, (some of which have hastned their deaths to enjoy this immortality) and man's particular external shape, infer the particular excellence of his internal form. So that by the Philosophical Maxime, which requires that there be contraries in every species of things, if the souls of beasts joyn'd to bodies die, there must be others joyn'd to other bodies, free from death when separated from the same. And the Harmony of the world which permits not things to pass from on extreme to another without some mean, requires as that there are pure spirits and intelligences which are immortal, and substances corporeal and mortal, so there be a middle nature between these two, Man, call'd by the *Platonists* upon this account, the horizon of the Universe, because he serves for a link and *medium* uniting the hemisphere of the Angelical Nature with the inferior hemisphere of corporeal nature. But there is difference between that which is, and that which may be demonstrated by Humane Reason, which falls short in proving the most sensible things, as the specific proprieties of things; and much less can it prove what it sees not, or demonstrate the attribute of a subject which it sees not. For to prove the Immortality of the Soul, 'tis requisite, at least, to know the two termes of this proportion, The Soul is immortal. But neither of them is known to natural reason; not immortality, for it denotes a thing which shall never have end; but infinitie surpasses the reach of humane wit which is finite. And the term, Soul, is so obscure that no Philosophy hath yet been able to determine truly, whether it be a Spirit, or something corporeal, a substance or an accident, single or triple.

The Second said, That every thing that is mortal and corruptible, is such, in that it hath in it self some cause of this corruption. All mortal bodies, being compos'd of contrary ingredients, have in themselves the principle of corruption, from which as well simple bodies, as the Elements and Heavens, as Spirits and separate intelligences, are free; because a thing simple in its own nature cannot act upon it self by a destructive action, though even those Spirits have but an arbitrary existence from their first cause on whom they depend. But in the first sence, and of their own nature they are absolutely incorruptible; for were they corruptible, then must some new substance be generated out of that which is corrupted, which is absurd; because they are simple and free from composition, and, consequently, from corruption. Now were reasonable Souls, which are part of man (who is compounded of matter and form) again compounded of matter and form, there would be a progression to infinity in causes, which is contrary to natural reason. Moreover, nothing is corrupted but by its contrary, and therefore that which hath no contrary is free from corruption. But such is the  
rational



rational soul which is so far from having any contrary, that the most contrary things in Nature, as habits and their privations, being receiv'd in the Understanding, are no longer opposites or enemies, but friends and of the same nature; whence the reason of contraries is alike, and there is but one Science of them.

The Third said, That such as a thing is, such is its action. A corporeal and material substance cannot produce an action which is not corporeal; and an immaterial action owns no other principle but what is immaterial and incorruptible. Hence the same reasons which prove the souls of brutes mortal, because their operations exceed not the bounds of the body, and tend onely to self-preservation and sensible good, conclude also, though by a contrary sense, for the immortality of the rational soul, whose operations are spiritual and abstracted from the body. For, nutrition, concoction, assimilation, sense, motion, and other such actions, being corporeal, because terminated upon sensible and corporeal objects, must consequently be produc'd by a faculty of the same nature corporeal and material. But the reasonable soul, besides those actions which are common to it with those of beasts, hath some peculiar and much more sublime, as by the Intellect to understand eternal truths, to affirm, deny, suspend its judgement, compare things together, abstract them from matter, time, place, and all other sensible accidents; by the will to love and embrace virtue in spite of the contrary inclinations of the sensitive appetite, to do good actions though difficult, to avoid the evil which flatters the senses, and the like; which actions being above the body and material objects cannot be produc'd but by an immaterial and incorruptible substance, such as the reasonable soul is. Moreover, since the soul can know all sorts of bodies, it must (consequently) be exempt from all corporeal entity, as the tongue to judge aright of flavours must have none, and the eye to discern colours well.

The Fourth said, That Nature, which makes nothing in vain, hath imprinted in every thing a desire of its end whereof it is capable, as appears by induction of all created Beings. Now the greatest desire of man is immortality, whereunto he directs all his actions and intentions; and therefore he must be capable of it. But since he cannot accomplish this end in this life, as all other things do, it must be in another; without which not only good men would be more unhappy then wicked, but, in general, the condition of men would be worse then that of beasts: if after having endur'd so many infelicities which brutes experience not, the haven of our miseries were the annihilation of the noblest part of our selves. Yea, if the soul could not subsist without the body, its supream good should be in this life, and in the pleasures of the body, and its chiefest misery in afflictions and the exercises of virtue; which is absurd. For whereas 'tis commonly objected, that the soul cannot exercise  
its



## Philosophical Conferences

its noblest functions but by help of corporeal organs rightly dispos'd ; and that when it is separated from those organs it can act no longer, and consequently shall exist no more, action and subsistence being convertible ; this is to take that for granted which is in controversy, namely, that the soul cannot act without the organs of the body, when it is separated from the same ; since it operates sometimes more perfectly when 'tis freest from the senses, as in Extasies, burning Fevers, in the night time, and in old age.

The Fifth said, As in Architecture the principal piece of a building is the Foundation ; so the most necessary of a Science, is to lay good Principles ; without which first establish'd, all our Sciences are but conjectures, and our knowledge but opinion. Now in order to judge whether the souls immortality be demonstrable by natural reasons, 'tis to be enquir'd whether we can find the principles of this truth, whose terms being known may be naturally clear and granted by all. The most ordinary are these. 1. Every thing which is spiritual is incorruptible. 2. That which is material is mortal. 3. That which is immaterial is immortal. 4. That which God will preserve eternally is immortal. 5. A thing acts inasmuch as it exists ; and some other principles, by which this so important verity seems but ill supported. For, the first is not absolutely true, since habits of grace, and natural habits, which are spiritual, are annihilated and corrupted, those by sin, these by intermission of the actions which produc'd them. Then for the second, 'tis notoriously false, since not only the forms of the Elements which are material, and the Elements themselves consider'd according to their whole extent, but also the first matter, are incorruptible and eternal ; and according to the opinion of many Doctors of the Church 'tis not an article of faith that the Angels are incorporeal, although it be *de fide* that they are immortal ; to say nothing of igneous, aërious demons, and other corporeal *genii* of the Platonists. As for the third, the actions of the understanding and the will are immaterial, and nevertheless perish as soon as they are conceiv'd ; and the intentional species are not incorruptible, though not compos'd either of matter or form : on the contrary, the Heavens which are so compos'd, are yet incorruptible. Whereby it appears that immortality depends on something else. As for the fourth, 'tis as difficult to prove that God will eternally preserve reasonable souls, as that they are immortal. And for the last, 'tis certain that many things act above their reach and the condition of their nature ; since that which exists not, as the end, nevertheless acts by exciting the efficient cause ; motion begets heat which it self hath not ; and light, a corporeal quality, is mov'd in an instant which is the property of incorporeal substances ; as also the Sun, which is inanimate, produces animals more excellent then it self. Whereby it appears that the Principle



ciple which saith, that the essence of every thing is discover'd by its operations, is not universally true, no more then all the rest, which are propos'd without explication and before defining the terms under which they are compriz'd. For as 'twere ridiculous in a Geometrician to require any one to grant to him that a right line may be drawn from a point given to another point, and a circle describ'd from any centre at any distance whatsoever, or to receive for a principle that all right angles are equal; unless he have before-hand explicated what he means by these terms of point, line, centre, circle, right angle and distance. So they are ridiculous who propose it for a principle, that every spiritual or immaterial thing is incorruptible and immortal, before having defin'd (as they cannot do) what is spiritual, immaterial and immortal. Yea, should these principles be granted to them, 'twould lye upon them to shew by natural reasons that the rational soul is spiritual, immaterial, independent on the body in essence, and not to suppose these things as true. And though it were granted them (which is very questionable) that the actions of men are of a higher degree then those of brutes, it would not follow from thence, that the reasonable soul is immortal and wholly abstracted from matter, but only that 'tis of a superior and more sublime order; as the phancy is a corporeal power as well as the sight, though its actions are much more excellent in comparison of this external sense, then the actions of the reasonable soul are in respect of the phancy which yields not much to it in its manner of acting. And yet they who write of the immortality of the soul, take this for a ground, and prove it by handsome congruities and probabilities, but do not demonstrate it, because 'tis a truth which though most certain is withall very obscure, and may indeed be comprehended by faith which hath reveal'd it to us, but is too remote from our senses to be demonstrated by natural and sensible reasons.

Upon the second Point 'twas said, That man is naturally as much delighted with motion, as he is an enemy to rest: Because Being, which he most desires, consists in action, which is a motion; whereas rest is the cessation of actions, and consequently an enemy of Being. 'Tis no wonder then that men are so desirous to travel, which is a sort of motion, since they are lead thereunto not only by the principles of their Being, which they have common with other animals (amongst which the most disciplin'd, as Elephants, Storks, Cranes, Swallows and Bees, change their climate from time to time) but also by the reason of their end and supream good which they find in travels. For since man's felicity in this life consists in knowledge, as appears by the desire every one hath to know and to appear knowing; and since the sight alone supplies more notions to the understanding then all the senses together, which were all given to man in order

II.  
Whether  
Travel be necessary to an  
ingenious  
man.



order to knowledge ; there is no more sure means of acquiring this supream good then by furnishing the sight continually with various species, as travels do, wherein new objects always occur, which recreate the mind as much as like things disgust those that stir not from the same place ; the understanding, like a consuming fire, languishing when it wants new objects for its food. Hence the sight of the same place wearies us, and the Civilians reckon it the first degree of servitude, to hinder one's neighbour the sight of one's house. Indeed the soul is a perpetual motion ; as the heavenly intelligences are never in the same place ; but the earth, the most worthless element, remaining unmoveable is the emblem of souls, like plants, fastned to the same spot of ground where they took birth. Wherein they seem to derogate from the advantage attributed by the Stoicks to man, when they say that he is a Citizen of the world ; whence *Seneca* saith, *Epist.* 28. I was not born to abide in one corner of the earth, the whole world is my Country. The holy Scripture calls man's life a Pilgrimage, whereas he who stirs not from one place sets up his habitation in it, whom he ought to seek elsewhere. God would not have so much recommended strangers and travellers, in the old Law, which he not only forbids to use ill, but also enjoyns to love as one's self. *Exod.* 22. 21. *Levit.* 19. 33. Nor would the Church have reckon'd the entertaining of Pilgrims and travellers among works of mercy, but only the more to animate men to this honest and holy exercise. Wherefore not only, with *Pythagoras*, Travellers are in the guard of some God, and amongst the most barbarous Nations under the publick faith and protection ; but also all Pagan Antiquity put them in the safe-guard of *Jupiter* the greatest of their Gods, whom they call Hospitable.

The Second said, That travels are necessary, either because they improve our knowledge or our virtues. But both these are very rare. Man's life is short, objects of knowledge are many ; and we must rely upon the unanimous testimony of others for many things. And if men became more vertuous by frequenting with sundry Nations ; then the ancient Hermits took a wrong course in hiding themselves in Desarts and Cloisters, to find virtue there. For as for moral Prudence, motion and change of place is wholly contrary to it, as rest is the cause of it, and the cube was sometimes the Hieroglyphick of it. Moreover, since the inclinations follow the temper (which is also diversifi'd by various climates) they who never stay in one Country, but continually change climates, acquire habits and manners, become inconstant, flitting and imprudent : were they not oblig'd to live after the fashion of the Country they reside in, at *Rome* as they do at *Rome* ; and because our nature is more inclinable to evil then to good, they suffer themselves more easily to be carri'd to vice then to virtue, of which they meet but few examples : Which mov'd *Lycurgus* to forbid his Citizens



zens to travel or retain strangers above 24 hours in their City, for fear the contagion of vice should come to corrupt the good manners of the Lacedemonians, as happen'd a long time after, when forgetting his precepts they gave entrance to barbarians, and other Nations, who infected and corrupted their City. And the Laws deny strangers the power of making wills and bequests, and such other priviledges, which they seem also to have renounc'd, by separating themselves from the community of their Country-men. Yea, if we believe the Philosopher they are no longer men being separated from humane society, as a part separated from the body is no longer a part of it. And the ingratitude of these wanderers to their own Country is justly punishable, since they frustrate it of those services which they are oblig'd by right of their birth to pay to it: but in requital for the same they have a Proverb against them, That a rolling stone gathers no moss, they little improve their fortunes.

The Third said, Every Nation produces not every thing; and all climates have inhabitants excelling in some particulars. Since therefore there's no such learning as by examples, and travels afford the most, it follows that it's necessary for an ingenuous man to survey foreign manners, institutions, customs, laws, religions, and such other things upon which moral prudence is superstructed. Whence *Homer* calls his wife *Ulysses*, the Traveller, and Visiter of Cities. Moreover, 'twas practis'd in all ages not only by our ancient Nobility under the name of Knights errant, but also by the greatest personages of antiquity, *Pythagoras*, *Socrates*, *Plato*, *Pliny*, *Hippocrates*: and we owe to the Voyages of *Columbus*, *Vesputius*, *Magellane*, and some others, the discovery of *America*, and other new Lands formerly unknown; and abundance of Drugs and Medicaments, especially Gold and Silver, before so rare; not to mention the commodities of commerce which cannot be had without Voyages.

The Fourth said, That for seven vagabond errant Stars all the rest of the firmament are fix'd and stable, sending no malignant influence upon the earth as the Planets do. And the Scripture represents Satan to us as a Traveller, when he answers God in *Job* to the question whence he came, I come from going to and fro in the earth, and from walking up and down in it.

The Fifth said, We must distinguish persons, places, times, and other circumstances pertaining to voyages. For if you except Embassies, in which the good of the State drowns all other considerations, those that would travel must be young and strong, rich, and well born, to get any good by their travels; otherwise they will be but like sick persons who receive no ease, but rather inconvenience, by tumbling and stirring; the injudicious and imprudent returning commonly worse then they went, because they distract their minds here and there. Of which one troubled with the same disease of travelling, asking



*Socrates* the reason, he answer'd him that 'twas because he did not leave himself behind when he chang'd place, and that he ought to change his mind and not the air in order to become wise; it being impossible but he that is a fool in one Country, can become wise by passing Seas and running from one Province to another. As for places, 'tis certain, that before the voyages of *Italy*, and some other climates, the disease of *Naples* and other worse things were not only not so much as heard; but most contagious diseases have by this means been transfer'd into the remotest Countries. So that if ever it were reasonable for a man to be wise at another's cost, 'tis in the matter of travels; in which those that have perform'd most, commonly bring home no other fruit but a troublesome talkativeness, wherewith they tire peoples ears, and a sad remembrance of what they have suffer'd.

### CONFERENCE LXXXVIII.

I. *Which is the best sect of Philosophers.* II. *Whence comes the diversity of proper names.*

I. *Which is the best Sect of Philosophers.* **O**NE of the greatest signs of the defects of the humane mind, is that he seldom accomplishes his designs, and often mistakes false for true. Hence ariseth the incertainty and variety in his judgements. For as there is but one straight line from one point to another, so if our judgements were certain they would be always alike, because Truth is one, and conformable to it self; whereas, on the contrary, Error is always various. This variety is of two sorts, one of the thing, the other of the way to attain it. For men were no sooner secur'd from the injuries of the air, and provided for the most urgent necessities of the body, but they divided themselves into two bands. Some following outward sense contented themselves with the present. Others would seek the causes of effects which they admir'd, that is to say, Philosophize. But in this inquisition they became of different judgements; some conceiving the truth already found, others thinking it could never be found, and others labouring in search of it, who seem to have most right to the name of Philosophers. The diversity of the way to arrive to this truth is no less. For according as any one was prone to vice or vertue, humility or pride (the probable cause of diversity of Sects) he establish'd one sutable to his own inclination, to judge well of which, a man must be of no party, or, at least, must love the interest of truth most of all. But the question is, which is Truth; no doubt that which comes neerest the Judge's sentiment, and has gain'd his favour, as *Venus* did the good will of  
of



of *Paris*. And because the goodness of a thing consists in its futableness, the contemplative man will judge *Plato's* Philosophy better then that of *Socrates*, which one delighted with action and the exercise of vertues will prefer before all others; the indifferent will give the preeminence to that of the Peripateticks who have conjoyn'd contemplation with action. And yet, speaking absolutely, 'tis impossible to resolve which is the best of all. For as we cannot know which is the greatest of two lines but by comparing them to some known magnitude; So neither can we judge which is the best Sect of Philosophers, unless it be agreed wherein the goodness of Philosophy consider'd absolutely consists. Now 'tis hard to know what this goodness is, unless we will say 'tis God himself, who as he is the measure of all beings, so he is the rule of their goodness. So that the best Philosophy will be that which comes neereſt that Supream Goodness, as Christian Philosophy doth, which consists in the knowledge of one's self and the solid practice of vertues, which also was that of *S. Paul* who desir'd to nothing but Jesus, and him crucifi'd; which he calls the highest wisdom, although it appear folly in the eyes of men.

The Second said, That the first and ancientest Philosophy is that of the Hebrews, call'd *Cabala*, which they divided into that of Names or Schemot, and of things call'd by them *Sephiroth*. Whose excellency *Josephus*, against *Appion*, proves, because all other Philosophies have had Sects, but this always remain'd the same, and would lose its name if it were not transmitted from Father to Son in its integrity. 'Twas from this *Cabala* that *Pythagoras*, and *Plato* surnamed *Moses Atticus*, took their Philosophy, which they brought into *Greece*; as 'twas from the Indian Brachmans and Gymnosophists that *Pythagoras* took his Metempsychosis and abstinence from women and animals; and learn'd weights and measures formerly unknown in *Greece*. Some of these Indian Philosophers use to stand upon one foot all day beholding the Sun, and had so great respect for every thing indu'd with a soul, that they bought birds and other animals, and if any were sick kept them in hospitals till they were cur'd, and then set them free. The Persians likewise had their *Magi*, the Egyptians their Priests, the Chaldeans and Babylonians their Astrologers and Sooth-sayers; the Gaules their Druyds and Bards. But the Greeks had more plenty and variety then any. Their ancientest Philosophy was that of *Museus*, *Linus*, *Orpheus*, *Hesiod*, *Homer*, who cover'd the Science of natural and supernatural things under the veil of Poetry and Fiction, till the time of *Pherecydes*, the master of *Pythagoras*, who first writ the same in Prose. Their Philosophers may be distinguish'd according to the diversity of subjects whereof they treat, whence they who amuz'd themselves about ratiocination were nam'd Logicians, the first of whom was *Zeno*. They who contemplated Nature, Naturalists, the first of whom was *Thales*; they who soar'd to



supernatural speculations, Metaphysicians; wherein *Aristotle* excell'd; those who regulated manners, Moralists, of whom *Socrates* was the principal, who was the son of a *Sculptor* and a *Midwife*. But their principal division is of their different Sects, which, though in great number, may be reduc'd to these following. I. The Academick, so called of the place where 'twas taught, so famous, that all places destinated to instruction in Liberal Sciences retain the same name at this day. 'Twas divided into three, namely, the old Academy, whereof *Socrates* and *Plato* were authors; the middle, which ow'd its institution to *Archefilaus*, author of the famous *Epoche*, or suspension of judgement concerning all things, whom for that reason *Tertullian* calls Master of Ignorance; and the new founded by *C Carneades* and *Lacides*, who held that there is something true, but 'twas incomprehensible, which was almost the same Sect with the Scepticks and Pyrrhoneans. II. The Cyrenaick introduc'd by *Aristippus* the Cyrenian, disciple of *Socrates*, who first took money for teaching others, and held it as one of his principal maxims, not to refuse any pleasure which presented it self to him, yet not to seek it. III. The Magarian, establish'd by *Euclides* of *Magara*, which proceeded by interrogations. IV. The Cynick, founded by *Antisthenes*, Master to *Diogenes*, and *Menippus*. V. The Stoick, whereof *Zeno Cyttiensis*, Auditor of *Crates* the Cynick, was author. VI. The Epicurean, of *Epicurus* the Athenian, who conceiv'd that every thing was made by chance, and that the chief good consisted in pleasure, some say of the body, others of the mind. VII. The Peripatetick, instituted by *Aristotle*. 'Twould be endless to relate the extravagances of all particular persons. But I conceive that of the Cynicks was the most dishonest; that of the Stoicks, most majestic; that of the Epicureans, most blameable; that of *Aristotle*, most honourable; that of the Academicks most safe; that of the Pyrrhoneans or Scepticks the most easie. For as 'tis not very creditable; so nothing is easier when any thing is ask'd of us then to say that we are incertain of it, instead of answering with certainty, or else to say that we know nothing of it; since to know our ignorance of a thing is not to be wholly ignorant of it.

The Third said, That the Sect of the Scepticks had more followers then any other, (doubters being incomparably more numerous then Doctors) and is the more likely to be true. For compare a *Gorgias Leontinus*, or other Sophister of old time, or one of the most vers'd in Philosophy in this age, who glory of knowing all, and of resolving all questions propounded, with a Pyrrhonean; the first will torture his wit into a thousand postures, to feign and perswade to the hearers what himself knows not, and by distinctions cast dust in their eyes, as the Cuttle-fish vomits Ink to soil the water when it finds it self caught. On the contrary, the Sceptick will freely confess the

debt,



debt, and whether you convince him or not, will always shew that he has reason to doubt. Nevertheless, though this Sect be the easiest, 'tis not in every thing the truest. For as 'tis temerity and intolerable arrogance to pronounce sentence confidently upon things which are hid to us, and whereof we have not any certain knowledge, as the quadrature of the circle, the duplication of the cube, the perpetual motion, the Philosophers Stone; so 'tis too gross stupidity to doubt of the existence of things, to judge whereof we need no other help but perfect senses; as that it is this day when the Sun shines, that the fire burns, and that the whole is greater then its parts.

The Fourth said, That Philosophy being the desire of Wisdom, or rather Wisdom it self, which is nothing else but a store of all the virtues Intellectual and Moral; that is the perfectest Philosophy which renders those addicted to it, most sure in their knowledge, and inclin'd to virtue. And because there was never sect but had some defect, neither in the theory or the practice, the best of all is not to be any, but to imitate the Bee, and gather what is good of each sort, without espousing it; which was the way of *Potamon* of *Alexandria*, who, as *Diogenes Laertius* records, founded a Sect call'd Elective, which allow'd every one to choose what was best in all Philosophies. 'Tis also the way that *Aristotle* held in all his Philosophy, especially, in his Physicks and Politicks, which are nothing but a collection of opinions of the Ancients; amongst whom he hath often taken whole pages out of *Hippocrates*, though he name him not. Nor are we more oblig'd to embrace *Aristotle's* Philosophy then he did that of his Predecessors; it being free for us to frame one out of his precepts, those of *Raimond Lully*, *Ramus*, and all others.

The Fifth said, That amongst all sects the most excellent, as also the most severe, is that of the *Stoicks*, whom *Seneca* ranks as much above other Philosophers, as men above women. Their manner of discoursing and arguing was so exquisite, that if the Gods, said one, would reason with men, they would make use of the Logick of *Chrysippus* the *Stoick*. Their Physicks treated partly of bodies, partly of incorporeal Beings, Bodies, according to them, are either principles or elements, which are ours. Their principles are two, God and Matter, which are the same with the Unity and Binary of *Pythagoras*, the fire and water of *Thales*. They call God the cause and reason of all things, and say that he is fire, not the common and elementary, but that which gives all things their being, life, and motion. And they believ'd that there is one God supremely good, bountiful and provident, but that he is single in his essence; herein following *Pythagoras*, who said that God is not so much one as Unity it self. *Seneca* saith, that he is all that thou seest, all intire in every part of the world which he sustaines by his power. Briefly, they conclude their natural knowledge of God as the sovereign cause, by his Providence, by Destiny, which he hath establish'd in all things,  
and



and by the *Genii*, Heroes and Lares, whom they constitute Angels and Ministers of this Supreme Providence. The Second Principle, Matter, they make coeternal to God, grounding their doctrine upon the Maxime of *Democritus*, that as nothing can be annihilated, so nothing can be made of nothing. Which was likewise the error of *Aristotle*, who is more intricate then the *stoicks*, in his explication of the first matter, which he defines to be almost nothing. True it is, they believ'd that every thing really existent was corporeal, and that there were but four things incorporeal, Time, Place, Vacuum, and the Accident of some thing; whence it follows, that not onely Souls, and God himself, but also the Passions, Virtues, and Vices, are Bodies; yea Animals, since according to their supposition the mind of man is a living animal, inasmuch as 'tis the cause that we are such; but Virtues and Vices, say they, are nothing else but the mind so dispos'd. But because knowledge of sublime things is commonly more pleasant then profitable, and that, according to them, Philosophy is the Physick of the Soul, they study chiefly to eradicate their Vices and Passions. Nor do they call any wise but him that is free from all fear, hope, love, hatred, and such other passions, which they term the diseases of the Soul. Moreover, 'twas their Maxime, that Virtue was sufficient to Happiness, that it consisted in things not in words, that the sage is absolute master not onely of his own will, but also of all men; that the supreme good consisted in living according to nature, and such other conclusions, to which being modifi'd by faith, I willingly subscribe, although Paradoxes to the vulgar.

II.  
Whence  
comes the di-  
versity of pro-  
per names.

Upon the Second Point 'twas said, That a name is an artificial voice representing a thing by humane institution, who being unable to conceive all things at once, distinguish the same by their differences either specifical or individual; the former by appellative names, and the other by proper, as those of Cities, Rivers, Mountains, and particularly those of men, who also give the like to Horses, Dogs, and other domestick creatures. Now since conceptions of the Mind, which represent things, have affinity with them, and words with conceptions, it follows that words have also affinity with things, by the Maxime of Agreement in the same third. Therefore, the wise, to whom alone it belongs to assign names, have made them most conformable to the nature of things. For example, when we pronounce the word *Nous*, we make an attraction inwards. On the contrary, in pronouncing *Vous*, we make an expulsion outwards. The same holds in the voices of Animals, and those arising from the sounds of inanimate things. But 'tis particularly observ'd, that proper names have been tokens of good or bad success arriving to the bearers of them, whence arose the reasoning of the Nominal Philosophers, and the Art of Divination, by names call'd *Onomatomancy*; and whence *Socrates* advises Fathers to give their



their Children good names, whereby they may be excited to Virtue ; and the *Athenians* forbad their slaves to take the names of *Harmodius* and *Aristogiton* , whom they had in reverence. Lawyers enjoyn heed to be taken to the name of the accused, in whom 'tis capital to disguise it ; and Catholicks affect those of the Law of Grace, as Sectaries do those of the old Law, the originals whereof were taken from circumstances of the Bodie ; as from its colour the *Romans* took those of *Albus*, *Niger*, *Nigidius*, *Fulvius*, *Ruffus*, *Flavius* ; we, those of white, black, grey, red-man, &c. from its habit, *Crassus*, *Macer*, *Macrinus*, *Longus*, *Longinus*, *Curtius* ; we, *le Gros*, long, tall, &c. From its other accidents, the *Latines* took *Cæsar*, *Claudius*, *Cocles*, *Varus*, *Naso* ; we, *le Gontoux*, (gowty,) *le Camus*, (flat-nos'd,) from Virtues or Vices, *Tranquillus*, *Severus* ; we, hardy, bold, sharp ; from Profession, Parson, Serjeant, Marshal, and infinite others. But chiefly, the names of places have been much affected even to this day, even since the taking of the name of the family for a surname. And if we cannot find the reason of all names and surnames, 'tis because of the confusion of languages, and alteration happening therein upon frequent occasions.

The Fourth said, That the cause of names is casual, at least in most things, as appears by equivocal words, and the common observation of worthless persons, bearing the most glorious names ; as amongst us, a family whose males are the tallest in *France*, bears the name of *Petit*. Nor can there be any affinity between a thing and a word, either pronounc'd or written ; and the *Rabbins* endeavour to find in Hebrew names, (which, if any, must be capable of this correspondence, in regard of *Adam's* great knowledge, who impos'd them) is no less an extravagance then that of matters of Anagrams. In brief, if *Nero* signifi'd an execrable Tyrant, why was he so good an Emperor the first five years ? And of that name import any token of a good Prince, why was he so execrable in all the rest of his life ?

## CONFERENCE LXXXIX.

### I. Of *Genii*. Whether the Suicide of the Pagans be justifiable.

**P***Lato* held three sorts of reasonable natures ; the Gods in Heaven, Men on Earth, and a third middle nature between those two, whose mansion is from the sphere of the Moon to the Earth ; he calls them *Genii*, from their being the causes of Generations here below, and Dæmons from their great knowledge. These *Genii*, whom his followers accounted to be subtile bodies, and the instruments of Divine Providence, are, according to them, of three sorts, Igneous, Aereous, and Aqueous ;

I.  
Of *Genii*.

the



the first excite to contemplation, the second to action, the third to pleasure. And 'twas the belief of all Antiquity, that every person had two *Genii*; one good, which excited to honesty and virtue, (as the good Genius of *Socrates*) whom they reckon'd in order of the Igneous; and the other bad, who incited to evil, such as that was which appear'd to *Brutus*, and told him he should see him at *Philippi*. Yet none can perceive the assistance of their Genius, but onely such whose Souls are calm and free from passions and perturbations of life. Whence *Avicenna* saith, that onely Prophets and other holy Personages have found their aid, in reference to the knowledge of future things, and government of life. For my part, I think these *Genii* are nothing else but our reasonable souls, whose intellectual and superior part, which inclines us to honest good, and to virtue, is the good Genius; and the sensitive inferior part which aims onely to sensible and delightful good, is the evil genius which incessantly sollicitates us to evil. Or if the *Genii* be any thing without us, they are no other then our good and evil Angels, constituted, the former to guard us, the second to make us stand upon our guard. Moreover, 'twas expedient that since inferior bodies receive their motion from the superior, so spiritual substances inherent in bodies should be assisted in their operations by superior spirits free from matter; as 'tis an ordinary thing in Nature for the more perfect to give law to such as are less in the same kind. And not onely men, but also all other parts of the world, have Angels deputed to their conservation; tutelary Angels being nothing but the organs of Divine Providence, which embraces all things.

The Second said, That the *Genii* produce in us those effects whereof we know not the cause; every one finding motions in himself to good or evil, proceeding from some external power; yea, otherwise then he had resolv'd. *Simonides* was no sooner gone out of a house but it fell upon all the company; and 'tis said, that as *Socrates* was going in the fields he caus'd his friends who were gone before him to be recall'd, saying, that his familiar spirit forbad him to go that way; which those that would not listen to were all mired, and some torn and hurt by a herd of swine. Two persons, formerly unknown, love at the first sight; allies, not knowing one another, oftentimes feel themselves seiz'd with unusual joy; one man is alwayes unfortunate, to another every thing succeeds well; which cannot proceed but from the favour or opposition of some *Genii*. Hence also some *Genii* are of greater power then others, and give men such authority over other men that they are respected and fear'd by them. Such was the Genius of *Augustus*, in comparison of *Mark Antonie*, and that of *J. Caesar* against *Pompey*. But though nothing is more common then the word Genius, yet 'tis not easie to understand the true meaning of it. *Plato* saith, 'tis the guardian of our lives. *Epicetus*, the over-seer and sentinel of the Soul. The *Greeks* call it the

Myſtagogue,



Myſtagogue, or imitator of life, which is our guardian Angel. The *Stoicks* made two ſorts; one ſingular, the Soul of every one; the other univerſal, the Soul of the world. *Varro*, as Saint *Auguſtine* reports, in his eighth book of the City of God, having divided the immortal Souls which are in the Air, and mortal which are in the Water and Earth, ſaith, that between the Moon and the middle region of the Air, there are aerious Souls call'd Heroes, Lares, and *Genii*, of which an Ancient ſaid, it is as full as the Air is full of flies in Summer; as *Pythagoras* ſaid, that the Air is full of Souls, which is not diſſonant from the Catholick Faith, which holds, that Spirits are infinitely more numerous than corporeal ſubſtances; becauſe as celeftial bodies are incomparably more excellent and ample than ſublunary, ſo pure Spirits, being the nobleſt works of God, ought to be in greater number than other creatures. What the Poets ſay of the Genius which they feign to be the Son of *Jupiter* and the earth, repreſenting him ſometimes in the figure of a ſerpent (as *Virgil* do's that which appear'd to *Æneas*,) ſometimes of a horn of plenty, which was principally the representation of the Genius of the Prince, by which his flatterers uſ'd to ſwear, and their ſacrificing Wine and Flowers to him, is as myſterious as all the reſt.

The Third ſaid, That the Genius is nothing but the temperament of every thing, which conſiſts in a certain harmonious mixture of the four qualities, and being never altogether alike, but more perfect in ſome than in others, is the cauſe of the diverſity of actions. The Genius of a place is its temperature, which being ſeconded with celeftial influences, call'd by ſome the ſuperior *Genii*, is the cauſe of all productions herein. Prepenſed crimes proceed from the melancholy humour; the Genius of anger and murders is the bilious humour; that of idleneſs, and the vices it draws after it, is phlegme; and the Genius of love is the ſanguine humour. Whence to follow one's Genius is to follow one's natural inclinations, either to good or to evil.

Upon the Second Point 'twas ſaid, That evil appears ſuch onely by compariſon, and he that ſees himſelf threatned with greater evils than that of death, ought not onely to attend it without fear, but ſeek it as the onely ſovereign medicine of a desperate malady. What then, if death be nothing, as the *Pagans* believ'd, and leave nothing after it. For we muſt diſtinguiſh Paganisme, and Man conſider'd in his pure ſtate of nature, from Chriſtianity and the ſtate of Grace. In the former, I think *Diogenes* had reaſon, when meeting *Spenciſſus* languiſhing with an incurable diſeaſe who gave him the good day, he answer'd, I wiſh not you the like, ſince thou ſuffereſt an evil from which thou maiſt deliver thy ſelf; as accordingly he did when he returned home. For all that they fear'd in their Religion after death, was, Not-  
X x x
Being;

II.  
 Whether the  
 Suicide of the  
 Pagans be  
 juſtifiable.



Being what their *Fæsti* taught them of the state of souls in the other life being so little believ'd that they reckon'd it amongst the Fables of the Poets. Or if they thought they left any thing behind them, 'twas only their renown, of which a courageous man that kill'd himself had more hope than the soft and effeminate. The same is still the custom of those great Sea Captains, who blow themselves up with Gun-powder to avoid falling into the enemies hands. Yet there's none but more esteems their resolution, than the demeanor of cowards who yield at mercy. This is the sole means of making great Captains and good Soldiers by their example, to teach them not to fear death, not to hold it, with poltron Philosophers, the most terrible of terribles. And to judge well of both, compare we the abjectness of a *Perseus*, a slave led in triumph, with the generosity of a *Brutus*, or a *Cato Uticensis*. For 'twere more generous to endure patiently the incommodities of the body, the injuries of an enemy, and the infamy of death, if man had a spirit proof against the strokes of fortune. But he though he may ward himself with his courage, yet he can never surmount all sort of evils; and according to the opinion of the same Philosopher, all fear is not to be rejected. Some evils are so vehement that they cannot be disposed without stupidity, as torments of the body, fire, the wheel, the loss of honour, and the like, which 'tis oftentimes better to abandon than vainly to strive to overcome them. Wherefore, as 'tis weakness to have recourse to death for any pain whatsoever, so 'twas an ignominious cowardize amongst the Pagans to live only for grief.

The Second said, That nature having given all individuals a particular instinct for self-preservation, their design is unnatural who commit homicide upon themselves. And if civil intestine wars are worse than foreign, then the most dangerous of all is that which we make to our selves. Wherefore the ancients, who would have this brutality pass for a virtue, were ridiculous, because acknowledging the tenure of their lives from some Deity, 'twas temerity in them to believe they could dispose thereof to any then the donor, and before he demanded it. In which they were as culpable as a Souldier that should quit his rank without his Captain's leave, or depart from his station where he was plac'd Sentinel. And did not virtue, which is a habit, require many reiterated acts, which cannot be found in Suicide, since we have but one life to lose; yet this action could not pass for a virtue, since Fortitude appears principally in sufferings and miseries; which to avoid by death is rather cowardize and madness than true courage. Wherefore the Poet justly blames *Ajax*, for that, after he had overcome *Hector*, despis'd fire and flames, yet he could not subdue his own choler, to which he sacrific'd himself. And *Lucretia* much blemish'd the lustre of her chastity by her own murder; for if she was not consenting to *Tarquin's* crime, why did she pollute her hands with the blood of



of an innocent, and for the fault which another had committed; punishments as well as offences being personal. He who kills himself only through weariness of living is ingrateful for the benefits of nature, of which life is the chief: if he be a good man, he wrongs his Country by depriving it of one, and of the services which he owes to it; as he wrongs Justice, if he be a wicked person that hath committed some crime, making himself his own witness, Judge, and Executioner. Therefore the Prince of Poets places those in hell who kill'd themselves, and all Laws have establish'd punishments against them, depriving them of sepulture; because, saith *Egesippus*, he that goes out of the world without his father's leave deserves not to be receiv'd into the bosom of his mother, the earth. I conclude therefore, that the ignorant dreads death, the timorous fears it, the fool procures it to himself, and the mad man executes it, but the wise attends it.

The Third said, That the generous resolution of those great men of antiquity ought rather to have the approbation than the scorn of a reasonable mind; and 'tis proper to low spirits to censure the examples which they cannot imitate. 'Tis not meet, because we are soft, to blame the courage of a *Cato*, who as he was tearing his own bowels could not forbear laughing even while his soul was upon his lips, for joy of his approaching deliverance; nor the constancy of a *Socrates*, who to shew with what contentedness he received death, convers'd with it, and digested what others call its bitterness, without any trouble, the space of forty days. *Sextius* and *Cleanthes* the Philosopher follow'd almost the same course. Only they had the more honour, for that their deaths were purely voluntary. For the will forc'd by an extrinsecal cause, performs nothing above the vulgar who can obey the laws of necessity: but when nothing forces us to dye but our selves, and we have good cause for it, this death is the most gallant and glorious. Nor is it unjust, as is pretended, any more than the Laws which suffer a man to cut off his leg for avoiding a Gangrene. Why should not the Jugular Vein be as well at our choice as the Median? For as I transgress not the Laws against Thieves when I cut my own Purse, nor those against Incendiaries when I burn my own wood; so neither am I within the Laws made against murderers, by depriving my self of life: 'tis my own good which I abandon, the thred which I cut is my own. And what is said, that we are more the publick's than our own, hath no ground but in our pride, which makes us take our selves for such necessary pieces of the world as not to be dismember'd from it without a noble loss to that great body. Besides, were we so usefull to the world, yet our own turn must be first serv'd. Let us live then, first for our selves, if it be expedient; next, for others: but when life becomes worse then death, let us quit it as we do an inconvenient or unbecoming garment. Is it not a sign



of generosity to make Gouts, Stones, Aches and all other Plagues of life yield to the stroke of a victorious hand, which alone blow puts an end to more maladies than all the simples of *Galen*, and the Antidotes of *Avicenna*.

The Fourth said, He could not approve the determination of the Stoicks, who say that vulgar souls live as long as they can; those of the wise, as long as 'tis fit, departing out of life as we do from the table, or from play when we are weary. That the examples of *Priscia* who accompani'd her husband in death; of *Piso*, who dy'd to save his children; of *Sextus's* daughter who kill'd her self for her father; of *Zeno* who did as much, to avoid the incommodities of old age (which made it pass for piety at *Rome*, a long time, to cast decrepit old men head-long from a Bridge into *Tiber*) are as culpable as he who surrenders a place when he is able to defend it. For whereas *Plato* exempts such from the punishment against sui-cides who committed it to avoid infamy or intolerable necessity; and what *Pliny* saith, that nature hath for this end produc'd so many poysonous Plants for five or six sorts of Corn, that there is but one way to enter into the world, but infinite to go out of it; the imputing it to stupidity not to go out of a prison when one hath the key, adding that 'tis lawful to execute that which 'tis lawful to desire, as *S. Paul* did his own death; yea the example which is alledged of *Sampson*, of *Razias*, and of eleven thousand Virgins who precipitated themselves into the sea to save their chastity; in the Church are effects of a particular inspiration, not to be drawn into consequence, and out of it examples of rage and despair disguis'd with the mask of true fortitude and magnanimity, which consists chiefly in supporting evils, as the presidents of so many religious souls attest to us.

## CONFERENCE XC.

I. *Of Hunting.* II. *Which is to be prefer'd, the weeping of Heraclitus, or the laughing of Democritus.*

I. *Of Hunting.* IF the least of goods hath its attractions, 'tis no wonder if Hunting (wherein are comprehended the three sorts of good; honest, profitable, and delightful) have a great interest in our affection; being undoubtely preferrable before any other exercise either of body or mind. For Play, Women, Wine, and all the pleasure which Luxury can phancy in superfluity of Clothes, Pictures, Flowers, Medals, and such other passions, not unfitly nam'd diseases of the soul, are divertisements either so shameful, or so weak, that they cannot enter into comparison with



with hunting, so honest that it hath been always the recreation of great persons, whose martial courage us'd to be judg'd of by their inclination to this sport, which *Xenophon* calls the apprenticeship of War, and recommends so much to *Cyrus* in his Institution, as *Julius Pollux* doth to the Emperour *Commodus*. Its profitableness is chiefly discern'd in that it renders the body dextrous and active, preserves health, and by inuring it to labour makes a firm constitution, hindring it from being delicate, consumes the superfluous humours, the seeds of most diseases. Lastly, the pleasure of Hunting must needs be great, since it makes the Hunters think light of all their pains and incommodities. The mind has its pleasure in it by hope of the prey in such as hunt for profit, and by the contentment of possessing what they sought: besides the consideration of the subtilty of the Fox and Wolf, the trouble which the Hare gives her displeas'd pursuers.

The Second said, 'Tis the only pleasure which does wrong to no person, but delivers Countries from the injuries and depredations of beasts. And though 'tis the most laborious of all pleasures, yet 'tis least follow'd by repentance, and instead of wearying those that are once addicted to it, makes them love it in excess, for which reason 'tis prohibited to the meaner sort of people. All the Heroes are represented under the form of Hunters; as *Perseus* who first hunted the wild Goat; *Castor* who taught the management of the horse, before wild, to chase the Stag; *Pollux* who first trac'd beasts with Lime-hounds; *Meleager* who invented the Spears to assault the Boar; *Hyppolytus*, Toyles, Hayes, and Nets; *Orion*, Kennels and Leashes; which were so admir'd in his age, that the Poets translated him into Heaven, where he makes a glorious sign, as they put *Castor* and *Pollux* among the Gods, and feign'd a *Diana* the Goddess of Hunters. Moreover, the holy Scripture gives *Nimrod*, the first King in the world, no greater title then that of Mighty Hunter. And the good man *Isaac* would not give his blessing to his son *Esau*, till after he had brought him of his Venison.

The Third said, That Man being since the loss of his dominion over the beasts, by his sin, oblig'd to defend himself against their invasion, this gave rise to hunting, which is consequently as ancient as the world. There are three sorts of it, according to the three sorts of animals which it pursues, in the air, on the earth, and in the waters; namely, Hawking, Hunting properly so call'd, and Fishing. Hawking is the pursuit of Birds by Birds, and its of divers kinds according to the diversity of Hawks and quarries. Hunting is the chase of four-footed beasts, which are either great, as Lyons, Bears, Stags, Boars; or small, as Wolves, Foxes, Badgers and Hares. Both the one and the other is perform'd by Dogs, of which there are good of all sizes and colours, and some peculiar to one sort of Game. Fishing is the venation of Fishes, whereof *Plato* makes two kinds; one  
by



by the Line, and the other by Nets, the more commendable in that 'twas practis'd by the Apostles, and our Lord himself, who was figur'd by the first Christians under the Hieroglyphicks of a Fish, with the Greek word  $\text{ΙΧΘΥΣ}$ , which they explicated thus by the first Letters of that Language, Jesus Christ, God, our Saviour.

The Fourth said, That Hunting being as various as men's conditions, its variety makes it as agreeable as necessary; gunning, which is the least, instructs the Souldier to shoot exactly, to be patient, and fits him for war, especially the hunting of the Badger, who makes head in his entries, then fights from trench to trench; and at length retreats to his last fort, where he practises all the sleights of war usual in besieg'd Cities, till he be taken by the undermining of the Pioneers. For *Pythagoras* his prohibition to kill animals, is no less light than his Metempsychosis; or his reason to forbear fishing, or eating of fish, out of respect to their silence. The objection, that God permitted our first Parents to eat the fruits of the earth, not the flesh of animals, and that during two thousand years none was eaten, concludes nothing from a Negative Authority; and *Abel* spar'd not the life of the Lamb of his flock, which he offer'd to God, then God had done that of the beasts, of whose skins he made Coats for *Adam* and *Eve*. And God's prohibition to the Jews to eat any thing taken by a beast, as Dogs or Birds, being abolish'd together with other ceremonies. Moreover, all animals being made for man, they have no reason to complain, if they be apply'd to that end, but especially the hunting of mischievous beasts is profitable.

II.  
Which is to  
be prefer'd,  
the weeping  
of *Heraclitus*, or the  
laughing of  
*Democritus*.

Upon the second Point 'twas said, That in this Question, to justify weeping, we have the example of our Lord, whom we read not ever to have been seen laughing, not even at the marriage feast whereat he was present; but he lamented the death of *Lazarus*, though he knew that himself was going to raise him up again. And he compares the entrance into Paradise to the gate of a Judge, which a good woman cannot get open, nor move the Judge to do her justice, but by many complaints and tears: and he pronounceth the house of mourning blessed, saying, that GOD abides there: on the contrary, laughter and rejoicing not onely were the fore-runners of the Deluge, but at present occasion a thousand offences against God, our Neighbour, and our Selves. Moreover, all the Exhortations and Sermons of Preachers tend only to move tears of contrition; and some observe, in the trial of Witches and Conjurers, that they never weep, which is a certain argument of an ill nature, especially in women and children. And *Dido*, speaking of the ingrateful *Aeneas*, more resents his not weeping when he bid her adieu, than all the rest. For we are naturally inclin'd to weeping, as being the most humid  
of



of all animals; and nature seems to have made the brain only for the eyes, which being always moist have also a glandule in the greater corner, call'd (from its office) *Lachrymalis*, which is a spongy flesh full of little holes, serving to attract the moisture of the brain which furnishes the matter of tears, and disperses it drop by drop, lest falling too much together, the brain should be left dry, which is a temper contrary to its natural one. Now as for objects without us, 'tis evident there is more cause of weeping then of laughter. For if we look under our feet, there the ground presents it self, which sooner then every one hopes is to bury every on's ambition, and afford him but six foot of earth; if on each side of us, there appear so many miseries, that the Spaniards, who are accusom'd thereunto, say proverbially that they who are afflicted with the miseries of others bear the whole world upon their shoulders. If upwards, what a cause of sadness is it to see that so great and vast a Kingdom is at this day in less esteem then the meanest part of this valley of tears, the earth, and to see God dishonour'd so many ways. Come we down to our selves; the infirmities of the body, the afflictions of the mind, all the passions of the soul and the crosses of fortune, have made those that have most tasted the pleasures of this life, acknowledge that it is nothing but thorns and miseries, and with the wise man, nothing but vanity: of which not to speak a word, were to be insensible; to laugh, impiety; and to imitate *Æsop's* Snails who laugh'd at their cost. It remains, therefore, that 'tis wisdom to bewail them.

The Second said, There is a time to weep, and a time to laugh, as the Wiseman testifies; so that to do either continually is equally vicious: Yet laughter being most sutable to man who is defin'd by the faculty he hath to laugh, and not by that of weeping, which is common to Harts and Crocodiles, who shed true tears, and other beasts weep after their manner, but none laughs: I conceive that the laughter of *Democritus* was lesse blameable then the weeping of *Heraclitus*; whose tears render'd him odious and insupportable to all the world, which, on the contrary, is greatly pleas'd with the company of laughers, and easily side with them. Moreover, their Jovial and sanguine humour is always to be preferr'd before the Saturnine and melancholy humour of weepers, who are their own greatest enemies, exhausting their moisture, and by concentration of the spirits hindring the free functions of reason. Whereas laughter which is a sign of joy and contentment dilates the spirits, and causes all the actions of life to be perform'd better. And the laughter of *Democritus* exciting the like motion of joy in the spectators; their joy dilated their spirits, and render'd them more docible and capable to receive his counsels.

The Third said, That as a Physitian were no lesse impertinent in laughing at his Patient, then imprudent in weeping for the malady which he sees him endure: So *Democritus* and *Heraclitus*



*raclitus* were as ridiculous, the one as the other, in laughing at, or lamenting the misery of men. Moreover, it seems to be a sign of repentance, that he put out his own eyes, and not to Philosophize the better : otherwise he should have done as one that cut off his own legs that he might leap the better ; since the eyes are the windows of the soul, whereby it admits almost all its informations. *Heraclitus* therefore was more excusable ; because tears proceed from charity and compassion, but laughter is an effect of contempt, and procures us as much hatred as the other do's affection. Besides, *Democritus*'s laughter could neither make others better, nor himself ; for what profit can be made by the ironies and gibes of a mocker. On the contrary, tears are so perswasive, that *Augustus*, as subtle as he was, suffer'd himself to be deceiv'd by those of *Cleopatra*, and believ'd her willing to live when she had resolv'd to dye.

The Fourth said, That both of them had reason, considering the vanity of the things of the world, which are equally ridiculous and deplorable. For though laughter and weeping seem contraries, yet they may proceed from the same cause. Some Nations have wept at the birth of their children, whereas we make exultations. Many have laugh'd at *Alexander* who wept because he had no more worlds to conquer. *Xerxes* wept when he beheld his goodly Army, of which not one person was to be left after a hundred years, whilst a Philosopher of his train laugh'd at it. And in both passions there is a retraction of the nerves ; whence the features of the countenance of one that laughs are like those of him that weeps. Moreover, the three subjects which may oblige men to laughter, namely, the crosses of fortune, and what they call Virtue and Science, afford equal matter of laughing and weeping. When fortune casts down such as she had advanc'd to the top of her wheel, are not they as worthy of commiseration as of derision, for having trusted to her inconstancy ? When our Gentry cut one another's throats for an ambiguous word, lest they should seem cowards, are they not as deplorable as ridiculous, in taking the shadow of virtue for it self ? And as for Science, should these two Philosophers come from the dead, and behold our youth spend ten years in learning to speak, and all our Philosophy reduc'd to a bundle of obscure distinctions, would not they dye once more with equal reason, the one with weeping, and the other with laughing ?



## CONFERENCE XCI.

I. *Whether heat or cold be more tolerable.* II. *Who are most happy in this World, Wise Men or Fools.*

Comparison moves us more than any other thing. And though no sense be less fallacious than the Touch, yet 'tis guided by comparison as well as the rest. Thus Caves seem cold in the Summer, because we come out of the hot air; and hot in Winter, because the same air which we forsake is cold, the Cave remaining always in the same temper, without recurring to those Antiperistases which have no foundation in the thing; the organs of the Touch being the sole competent judges of the several degrees of tangible qualities; the first of which are heat and cold, provided those Organs be neither too obtuse, as in the Paralytical, nor too exquisite as when the nerve lyes naked. 'Tis requisite also that the man who judges be in health, for he that has an Ague thinks nothing too cold in his hot fit, and nothing too hot or so much as temperate during the cold fit; so the phlegmatick and melancholy bear heat better than cold, the bilious and sanguine the latter better than the former, as correcting the excess of their own temper. Now at first sight heat seems more supportable, because more congruous to life, which consists in heat (by which *Galen* defines the soul) as death in its contrary, cold. Moreover nature hath made the hot Climates more large and capacious than the cold, which are two very streight ones, although she hath supply'd those Regions with the remedy of Furs: all the rest of the world is either hot or temperate, and always more hot than cold. Nevertheless, I conclude for cold, because heat joyn'd to our heat renders it excessive, whereas cold being encounter'd by it, there results a temperate third. Besides, the opposition of cold redoubles the natural heat; whence we have greater appetite in Winter than in Summer, sleep longer, and perform all natural functions better, and are more cheerful in mind: whereas in Summer our bodies and minds are languid, and less capable of labour; and 'tis more dangerous, in reference to health, to cool our selves in Summer than to heat our selves in Winter; the first occasioning, the latter preventing most diseases.

The Second said, That cold being an enemy to nature, it excess must be more hurtful, and consequently more insupportable than that of heat, particularly that of the Sun. For this grand Luminary, the soul of the Universe, and whose heat is the cause of all generations, must also be that of their preservation not of their destruction. Whence the excess of his heat is much

Y y

more

I.  
*Whether heat  
or cold be  
more tolera-  
ble.*



more tolerable then that of cold. Moreover, hot Countries are more fertile, and the Scripture teaches us that the first Colonies came from the South: Yea, some Doctors place the Terrestrial Paradise under the *Æquinoctial*: whence it follows that hot Regions having been first inhabited, have also been most habitable: even the Torrid Zone, thought uninhabitable by all antiquity, experience hath found very populous; whereas the cold are but very little habitable, and not at all, beyond the 78 degree.

The Third said, That the heat which preserves our lives is natural, gentle, and agreeable, not extraneous, as that meant in the question is. Therefore external cold must be compar'd with heat, likewise external and extraneous, not with the vital heat, which is of a more sublime order then these elementary qualities. Now 'tis certain external heat is more powerful and active then external cold, since it consumes and dissolves Metals, which cold cannot, and is more hurtful because it dries up humidity which is the foundation of life. 'Tis also less tolerable; for we can bear the touch of the coldest body in the world, namely Ice, yea eat it without harm; but none could ever resist flames. Whence fire is the cruellest of punishments, not cold, from which, besides, we may more easily defend our selves then from excessive heat, which may be abated a little by winds, shadows, or other artifices, but not wholly, as cold is by help of fire, clothes, and motion.

The Fourth said, If it be true which *Cardan* saith, that cold is nothing but a privation of heat, Nature, which dreads nothing so much as non-entity, must abhor it most; nor can it be any way active, since that which exists not cannot act. But I will suppose, as 'tis most probable, that both the one and the other are positive entities, since cold enters into the composition of bodies as well as heat, the bones, membranes, skin, nerves, and all but the fleshy parts, being cold, as also the brain, the noblest part of man. And I conceive that heat and cold, consider'd either as internal principles of a living body, or as two external agents, enemies of life, cold is always more hurtful then heat. On the one side hot distempers alter the functions, but cold abolish them, depriving us of sense, motion and life, as in the Lethargy, Apoplexie, Epilepsie, and other cold diseases. And on the other, external heat indeed draws forth part of our spirits, and thereby weakens us, whence come faintings after too hot a bath, or too great a fire: but it never wholly quenches and destroys them; as the light of the Sun drowns that of a Candle at noon, but do's not extinguish it.

The Fifth said, Because, as *Hippocrates* saith, in his Aphorisms, some natures are best in Winter, others in Summer; as old men are not much inconvenienc'd by the most vehement heats, whereas cold kills them; on the contrary, young people of hot tempers endure heat more impatiently then cold; and there is no temperament *ad pondus* or exact; Reason must be call'd to the



the aid of our senses, not only to judge of moist and dry, as *Galen* thinks, but also of hot and cold : which being absolutely consider'd in their own nature, without respect to us, I conceive heat much more active then cold, and consequently, less supportable : because the more a thing hath of form, and less of matter, 'tis the more active; the one of these principles being purely active, and the cause of all natural actions, the other simply passive. Thus the earth and water are dull and heavy elements, in comparison of the air and fire, which are less dense and material : Heaven, the universal cause of all sublunary things, is a form without matter, as *Averroës* affirms. Now heat rarifies and dilates its subject, and seems to make it more spiritual, and so is more active then cold, which condenses and stops all the pores and passages. Which also appears, in that the hottest diseases are the most acute ; and if cold diseases kill sometimes, they charm and dull the senses, and so render death more gentle and supportable. On the contrary, the cruellest deaths, great pains, and the most violent diseases, are ordinarily caus'd by some hot humour. Hence it is that no person dyes without a Fever ; and *Hippocrates* affirms that the same heat which generates us kills us. In fine, God, who is the prime Reason, hath judg'd heat more active, and less supportable then cold, since he appoints fire to torment the devils and damned souls.

Upon the second Point 'twas said, As there is but one right line, and infinite crooked, so there is but one wisdom, and one way to attain it, namely, to follow right reason ; but follies are of all sorts, and of as many fashions as there are different minds which conceive things under divers apparences of goodness. So that the number of fools being greater then that of wise men, these will always lose their cause. Moreover, if happiness be well defin'd by contentment, who is there but accounts fools more happy then the wise ? Witness he, who otherwise intelligent enough, was a fool in this only point, that he would diligently repair alone to the Theatre, and phancy that he saw and heard the Actors, and applauded them, although no body was there besides himself : but being cur'd of his folly, he complain'd of his friends in stead of thanking them, for having been too careful to render him miserable, being a happy man before. Besides, folly hath this priviledge, that we bear with that truth from the mouth of a fool which would be odious in another : and the tribe of fools is indeed exceeding great, since we are born such ; for a child is agreeable upon no other account but its simplicity, which is nothing else but folly ; by which many faults are excusable in youth, which are not to be endur'd in other ages. And those whom we account happiest, and that dye of old age, end thus ; and are therefore call'd twice children ; and folly serves to take away the sense of all the discontents and incommodities of old age. Yea he that more

II.

*Who are most  
happy in this  
world, Wise  
Men or Fools.*



neerly considers the course of our life will find more of folly in it then of wisdom. For if self-conceit, play, love, and the other passions, be so many follies, who is free from it?

The Second said, That wise men alone are happy, is justly accounted a Stoical Paradox, since 'tis contrary to true natural sentiments, which shew us that the happiness of this life consists only in two points, namely, in the privation of grief, and the possession of good. As for the first, not to speak of bodily pains, from which the wise are no more exempt then fools, the strongest minds are more intelligent by their more vigorous reasoning, and (consequently) more susceptible of inward grief and affliction, of hope, fear, desire, and as other passions; besides that they are ordinary of a melancholy temper, and more fix'd upon their objects then fools, who are more inconstant: to say nothing of the scruples of conscience, which many times rack their spirits, of the points of honour, of civilities, nor of the knotty questions in the Sciences. As for the latter, the possession of good, fools have a better share then the wise, because there is no absolute, but onely relative, good in this world; whence proceeded the many different opinions touching the chief good, and the saying, that none is truly happy unless he thinks himself so. And therefore there are more fools then wise happy. For the latter discerning the meaness and vanity of the goods of the world, account it no happiness to possess them, but strain their wits to find others more solid, which they will never find in this world: whereas the former live contented and happy in the quiet enjoyment of their present goods, beyond which they wish no others. Moreover, our happiness and contentment depends upon our selves, that is, upon our own imagination, as appears in the Hospitals of fools, who are so far from resenting the horror and misery wherein they really are, that, on the contrary, they flatter themselves with their agreeable phancies of being Kings, Emperors, and very gods; from which they take more pleasure then they give to others. As also in that Athenian, who imagining all the ships in the Piræan Haven to be his, rejoyc'd for their return, and su'd his friends at Law for curing him of this agreeable folly. In fine, according to the meer sentiments of nature, the people of the world addicting themselves to all sorts of pleasures, are more happy then those who deny the same to themselves, in obedience to the counsels of the Gospel; and yet in the judgement of God, who is the rule of true wisdom, these are wise, and the other fools. Lastly, the Law is favorable to fools in the perpetration of great crimes, their defect of will being their security. For which reason we call them Innocents.

The Third said, This Question is the harder to be determin'd, because there is no judge but is a party. But if we refer our selves to the wise, as it belongs to them to determine things, they will judge it to their own advantage. And indeed, to place  
felicity



felicity of the mind in the total alienation of the mind, or in the several degrees of the same, is no less preposterous then to place the pleasure of the body in pain or diseases. For man's felicity or chief good consists not in opinion; otherwise it were not true, but only imaginary, and so man alone, amongst all the creatures, could not be truly happy. But this beatitude of man consists in his end; this end is his action; the action of man, as man, is that which renders him like to God by contemplation and virtue, the two most perfect operations of the understanding and the will, proceeding from principles to conclusions in the theory, and from the means to the end in the practice of moral virtues, which are not without prudence and reason, because they consist in mediocrity, which cannot be understood but by the comparison of the two extremes; which is an action of the understanding. Since therefore folly is a Læſion of the rational faculty, whether this Reason be abolish'd, deprav'd or diminish'd (which are the several degrees of folly) fools cannot be happy, because they cannot live according to right reason: in which the essence of this life's felicity consists. As they are exempt from vices, so they are incapable of virtues. And if it be true, that no man is happy but he that is contented, and that contentment consists in the satisfaction we have in the enjoyment of some good, which gives us rest; fools cannot be happy, since satisfaction of mind proceeds from its reflexion upon the excellence or goodness of the thing which we possess. Now reflexion is a most perfect act of the Intellect, which returns upon its objects and it self. So that what Civilians say of slaves, that they cannot be happy in this world, because they are not their own, nor counted for any thing, but reputed in the number of the dead; the same may with much more reason be affirm'd of fools.

CONFERENCE XCII.

I. Which is most healthful, moisture or dryness.

II. Which is to be preferr'd, the contemplative life, or the active.

THE Philosopher *Thales* had reason in affirming water to be the principle of all things; whether he had learn'd out of the books of *Moses*, that in the beginning the Spirit of God mov'd upon the face of the waters, and so the water appear'd first of the Elements; or else had observ'd in nature that no sublunary forms can subsist without moisture, which Chymistry teaches us to extract out of the most acid bodies, which neither can subsist without humidity tying and uniting their parts, other-

I.  
Which is  
most health-  
ful, moisture  
or dryness.



otherwise likely to fall into dust; as it also serves to all generations, those of Plants and Animals beginning always by humidity, which is the cause why the Sea is more fruitful in Fish (which likewise are more sound) than the earth in its Animals, of less bulk than the Marine. For humidity is the food of their natural heat; it also causes Leaves, Flowers and Fruits, to grow forth in Plants upon the earth, and in the entrails thereof it forms Minerals; the noblest of which are the most ductile and fusible, which is a sign of their abundant humidity, as the driest and most earthy are the worst. The dews of Heaven fertilize the earth, whence God threatens his people to give them a heaven of brass, and an earth of iron; and when he promises great blessings, he saith, he will give dew in abundance, which also was the blessing which *Isaac* gave his son *Esau*. The inundation of *Nilus* fattens the possessions of *Egypt*. The Spring, the most healthful and agreeable of all Seasons, is moist; Autumn, on the contrary, is the producer of diseases, by reason of its dryness. Pearls are generated in the humidity of the Sea, wherein also *Venus* was born. Moisture is also the cause of plumpness and beauty, which is never found in a lean face and a dry body; and it hath so great an influence in our nature, that we call a good one a good or pleasing humour. The Moon governs all things by moisture upon which she hath a particular influence; and the Planets are more benigne in moist Signs than in dry, amongst which that of *Virgo* spoils the earth of all its beauties; and of the Planets *Mars* and *Saturn* are the destroyers of nature by their dryness. In fine, Humidity renders the Seasons, Winds, Places, Ages more agreeable, and Women more beautiful than Men. As Children, who abound in humidity, are more agreeable than dry old men. And there's no person but had rather live in a climate temper'd with humidity, as between 40 and 50 degrees, than in the sands and desarts of *Libia*, more proper for the generation of Monsters than the habitation of men.

The Second said, Although dry weather, being the fairest and pleasantest, hath more patrons than moist, yet 'tis more unhealthy. The temperate Zones are pluvius; and that Autumn which is commonly rainy, is yet most unhealthy, this proceeds from the inequality of its temperature, and some other extraneous causes, as the abundance of fruits which fill our bodies with crudities. The Spring, whose temperature is hot and moist, is according to *Hippocrates*, most healthy, not subject to great diseases, the matter whereof is evacuated by expulsion of the noxious humours. Moreover, humidity revives Plants and Animals, and Man, Nature's perfectest work, abounds most with it; to which cause *Cardan* refers his greater sagacity. And being life is nothing else but the Prime Humidity, thence thirst comes to be the greatest bodily inconvenience; and diseases caus'd by a dry intemperature are generally incurable.



incurable. Rheum is not so dangerous as an Hectick Fever, and experience shews us that land too moist may be render'd fertile, but there's no remedy for the droughts of *Africa*; humane Art being puzzled to preserve a Garden during those of Summer. Lastly, Physick takes the opportunity of moist weather for purgations, as most convenient for health.

The Third said, That all the first qualities are active, but heat and moisture more then the other two, whence the air being imbu'd with humidity alters our bodies more sensibly then when 'tis charg'd with dry exhalations. For our radical moisture is aerious, oily, and benigne, and the extraneous moisture is aqueous, maligne and pernicious; a capital enemy to that balsame of life, as extraneous heat is to our vital heat, which is suffocated by abundance of excrements collected by humidity which stops the pores, but dissipated by dryness which opens them. Which made the Prince of Physick say, *Aph. 15. Sect. 3.* that of the seasons of the year droughts are more healthy, and less fatal, then rainy and moist weather, in which happen long Fevers, Fluxes, Epilepsies, Apoplexies, and divers others putrid maladies. Though 'tis impossible to determine the question absolutely, because 'twould be requisite to consider siccidity and humidity separate from other qualities and in their own nature, wherein they are not to be found, being never separated from cold or heat, which render their natures, and (consequently) their effects various.

The Fourth said, That the pleasure we take in a thing is the surest evidence of the good or hurt it does us. Hence rain is always more grateful to us in droughts, then the contrary. Besides, Death, and old age which leads to it, is nothing but a desiccation; and dry diseases are most perillous, because they are either conjoyn'd with heat which encreases them and makes them very acute, or with cold which generates Schirrusses, and other maladies accompani'd with obstruction, which are not cur'd but by humectation. Summer and Autumn are the sickliest and dryest seasons of the year, but we are more healthy in Winter and the Spring. And do's not the humidity of the night repair the loss caus'd by the siccidity and actions of the day? as in the morning, the most humid part of the day, our minds are more serene then all the rest of the day, whence it was call'd the friend of the Muses. The Brain, the mansion of the soul and its divinest faculties, is not only most humid, but the seat of humidity; as choler, melancholy, fear, and all other passions common to us with beasts have their seat in the Gall, the Spleen, and the heart, which are dry parts. But although humidity seems more a friend to nature, then siccidity, yet the question must be voided by the distinction of temperaments, of which the melancholy and the bilious especially receive very great incommodity from droughts, and benefit from moist seasons, which, on the contrary, much torment the phlegmatick.

Upon



II.  
Which is to  
be prefer'd  
the contem-  
plative life,  
or the active.

Upon the second Point 'twas said, That man being born to live in society and employment, the contemplative life seems incongruous to this end; and our first Parent was plac'd in the earth to Till it, and eat his bread in the sweat of his countenance, not to live idly, and look about him. Moreover, the end is more noble than the means which tend to it; but we, generally, contemplate only in order to act. In Divinity we consider God's Commandments, in order to perform them; In Mathematicks, Lines, Surfaces, Solids, Numbers and Motions, to make use thereof for Fortifications, Carpentry, and the Mechanicks; In Natural Philosophy, its Principles and Causes, to refer the same to Medicine; In Law, Right, to apply it to Fact; In Morality, the Virtues, in order to exercise them. Consider what difference there is between the contemplation of an empty brain and solid action, that is to say, between theory and practice; you will find the former only a chimera, and the other a reality, as excellent and profitable as the first is useless, except to feed the phancy with vain imaginations, and fill the mind with presumption; there being none but thinks himself a greater master than others, before he hath set his hand to the work; and yet 'tis by their works that our Lord tells us we shall know every one, and not by their discourses, which are as much below them as effects and things are more than words.

The Second said, Contemplation is as much more excellent than action, as the soul is then the body; and to compare them together is to equal the servant with her mistress. For, not to speak of the raptures of an extasi'd soul, nor of eternal bliss, which consisting in contemplation, that of this world must do the like in reference to natural things: Nature alone teaches us that things which are for themselves are more excellent than those which are for others. But the contemplation and knowledge of truth, hath no other end but it self; action, the common uses of life. Whence contemplation less needs external things than action, which requires the help of Riches, Honours, Friends, and a thousand other circumstances, which hinder a contemplative person more than they help him, who therefore delights most in Desarts and Solitudes. Moreover, the end is to be prefer'd before the means, and the end of active life is to bring us rest, as the military life is in order to establish, and the civil to preserve peace; therefore the rest of the contemplative life being the end of the turbulent active life, it is much more noble than its means. As appears also by its duration, which is greater than that of transient and transitory action; but contemplation is durable and permanent, which is a sign of the Divinity of the Intellect that produces it, infinitely more excellent than all the other inferior powers, the principles of actions. Contemplation being abstracted from matter and earthly things wearies not the body as actions do, which require corporeal organs;



gans ; and therefore the pleasure of it is most pure and simple, and constant, in regard of its object, those sublime things which wisdom contemplates ; whereas that of action is never intire, by reason of the inconstancy of its object, which are political things continually mutable. The contemplative man finds full satisfaction in himself, without going abroad to beg approbation and rewards from men, without which virtues languish and are imperfect. Moreover, the pleasure of contemplation is peculiar to men, and not competent to brutes, who have not only external actions as well as we, as Speaking, Singing, Dancing, Fighting, Spinning, Building, and other Works of Art, which we learn'd from them, for the most part ; but they have also virtues, as Chastity, Simplicity, Prudence, Piety. On the contrary, God, as the Philosopher teaches, exercises neither virtues, nor any external actions, but contemplation is his sole employment, and, consequently, the most divine of all, though it were not calm, agreeable, permanent, sufficient, proper to man, and independent of others, which are the tokens of beatitude, and the chief good.

The Third said, since 'tis true, which *Plato* saith, that while we are in this world we do nothing but behold, by the favour of a glimmering light, the phantasms and shadows of things, which custom makes us to take for truths and bodies ; they who amuse themselves in contemplation, in this life, cannot be said contented, unless after the manner of *Tantalus*, who could not drink in the midst of the water ; because they cannot satisfy that general inclination of nature (who suffers nothing idle in all her precincts) to reduce powers into act, and dead notions into living actions. If they receive any pleasure in the knowledge of some truths, 'tis much less than that which is afforded by action, and the exercise of the moral virtues, of the active life, the more excellent in that they are profitable to many, since the most excellent good is the most communicable. Moreover, all men have given the pre-eminence to civil Prudence and active life, by proposing rewards and honours thereunto ; but they have punish'd the ingratitude and pride of speculative persons, abandoning them to contempt, poverty, and all incommodities of life. And since the Vice which is opposite to active life is worse than ignorance, which is oppos'd to the contemplative, by the reason of contraries action must be better than contemplation ; and the rather, because virtuous action without contemplation is always laudable, and many times meritorious for its simplicity : on the contrary, contemplation without virtuous acts is more criminal and pernicious. In fine, if it be true, that he who withdraws himself from active life, to intend contemplation, is either a god or a beast, as *Aristotle* saith ; 'tis more likely that he is the latter, since man can hardly become like to God.

The Fourth said, That to separate active life from contem-

Z z z

plative



plative is to cut off the stream from the fountain, the fruit from the tree, and the effect from its cause: as likewise, contemplation without the virtues of the active life is impossible: rest and tranquillity, which are not found in vice, being necessary to contemplate and know. Wherefore, as the active life is most necessary during this life, so the contemplative is more noble and divine, if this present life be consider'd as the end, and not as the means and way to attain to the other life, in which actions not contemplations shall be put to account. Contemplation is the Sun, Action the Moon of this little World, receiving its directions from contemplation, as the Moon of the great World borrows its light from the Sun: the former presides in the day of contemplative life; the second, which is neerer to us, as the Moon is, presides in the darkness of our passions. Both of them represented in *Pallas* the Goddess of Wisdom and War, being joyn'd together, make the double-fronted *Janus*, or Hermaphrodite of *Plato*, square of all sides, compos'd of Contemplation which is the Male, and Action which is the Female.

### CONFERENCE XCIII.

I. *Of the spots in the Moon and the Sun.* II. *Whether 'tis best to use severity or gentleness towards our dependents.*

I. *Of the spots in the Moon and the Sun.* **T**Here is nothing perfect in the world, spots being observ'd in the brightest bodies of Nature. And not to speak of those in the Sun, which seem to proceed from the same cause with those observ'd in our flame according as 'tis condens'd or rarifi'd; we may well give account of those in the Moon, by saying, with the Pythagoreans, and some later excellent Mathematicians, that the Moon is an earthly habitable Globe, as the eminences and inequalities, observ'd therein by the Telescope, the great communications of the Moon with our earth, depriving one another of the Sun, by the opacity, rotundity and solidity of both; and the cold and moist qualities which it transmits hither, like those of this terr-aqueous Globe; since the same appearances and illumination of the Earth would be seen from the Heaven of the Moon, if a man were carri'd thither. And because solid massie bodies, as wood and stone, reflect light most strongly, therefore the brightest parts of the Moon answer the terrestrial dense parts, and the dark the water, which being rarer, and liker the air is also more transparent, and, consequently, less apt to stop and reflect light. This we experience in the prospect of high Mountains very remote, or the points of Rocks in the open Sea, which reflect a light, and have a colour like that of the Moon, when the Sun is still above the Horizon with her: where-



as the Sea and great Lakes being less capable of remitting this light, seem dark and like clouds. So that were this Globe of Ocean and Earth seen from far, it would appear illuminated and spotted like the Moon. For the opinion of Plurality of Worlds (which can be no way dangerous of it self, but only in the consequences the weakness of humane wit would draw from it; much less is it contrary to the faith, as some imagine) is rather an argument of Gods Omnipotence, and more abundant communication of his goodness in the production of more creatures; whereas his immense goodness seems to be restrain'd in the creation of but one world, and of but one kind. Nor is it impossible but that, as we see about some Planets, namely, *Jupiter* and *Saturn*, some other Stars which move in Epicycles, and in respect of their stations, and those Planets, seem like Moons to them, and are of the same substance: so that which shines to us, here below, may be of the same substance with our earth, and plac'd as a bound to this elementary Globe.

The Second said, That the spots of the Sun and Moon cannot be explicated without some Optical presuppositions. And first, 'tis to be known that Vision is perform'd three ways; directly, by reflection, and by refraction. Direct Vision, which is the most ordinary, is when an object sends its species to the eye by a direct way, that is, when all the points of one and the same object make themselves seen by so many right lines. Reflective Vision is when the species of an object falling upon the surface of an opaque body, is remitted back to the sight, as 'tis in our Looking-glasses. Vision by refraction, is, when the species of an object having pass'd through a *medium* diaphanous to a certain degree, enters obliquely into another *medium* more or less diaphanous; for then 'tis broken and continues not its way directly: but with this diversity, that coming from a thicker *medium* into a thinner, as from water into air, the species in breaking recedes from a perpendicular falling upon the common surface of the two *mediums*; as, on the contrary, entring into a less diaphanous *medium* out of one more diaphanous, it breaks, and Comes neerer a perpendicular then it would have done had it continu'd directly. Secondly, 'Tis to be observ'd, that bodies which cause reflection or refraction are either smooth or unequal and rough. Smooth bodies make reflection and refraction with order; and the reflected or refracted image resembles its object, although it may be alter'd by the various figures of the reflecting or refracting bodies, as convex Looking-glasses diminish it, hollow enlarge it; whereas, on the contrary, convex Perspective Glasses enlarge and concave lessen the object: but both the Looking-glasses, and the other represent the Image perfect. Unequal and scabrous bodies reflect or refract confusedly without distinct representation of the Image; because these Bodies being terminated with infinite little imperceptible surfaces looking



every way, they also reflect every way, as is seen in stones, wood, and other bodies of different ruggedness, and so causing different reflections and refractions. In the third place, we must observe some prime properties of Looking-glasses; as, That if a species fall perpendicularly upon the surface, 'tis likewise perpendicularly reflected; and consequently, upon its own object; as when the Eye beholds it self in the glass. But if the species fall obliquely upon the glass, it will be reflected as obliquely the other way, making the angles of the incidence equal to those of reflection; as when the Eye beholds something else then it self in the glass. And an Eye constituted in the place where it may receive the reflection shall see the image of the object by help of the glass. But if the mirror reflect no species to the place where the Eye is, then the surface of the mirror shall appear so much more dark as the mirror is exact, that is, smooth; and more opaque, the greater the light is. As the Eye being in the place of reflection cannot bear the Sun-beams reflected from the mirror no more then the Sun it self; but being in another place, it shall see nothing but darkness, and take the glass for a hole, especially if it lie upon the ground. Moreover, a Convex Spherical glass hath this property, that it represents the image very small, and more small when the Eye and object are remote from the mirror which is small, or appears such. In which glasses also the Image never takes up the whole plane of the glass; but a very small part of it. Lastly, Every object which appears lucid, and not by its own light, transmits light to us either by reflection or refraction, after having receiv'd the same from some other luminous object. From these truths here suppos'd, but clearly demonstrated in the Catoptricks, I conclude necessarily, That the body of the Moon is not smooth, but rough or scabrous. For 'tis manifest by its various faces, that it borrows from the Sun the greater light of the two which appear in her, (the least whereof, namely, that which appears in the part which the Sun enlightens not; (in the increase and decrease) many think to be her own :) which borrow'd light increases or diminishes according as she removes farther from, or comes nearer to the Sun; whence the diversity of her faces. From which diversity of faces 'tis concluded further, that the figure of the face towards us is spherical, convex, either rough or smooth. But smooth it cannot be, because then it would represent the very Image of the Sun to us very small, and in a small part of its face, the rest remaining dark, by the aforesaid observations of Looking-glasses; wherefore it must be rough or unequal, because the whole face appears lucid when 'tis beheld by the Sun at the full, and no image of the Sun appears distinctly in it. For 'tis certain, that the Moon sends her borrow'd light by reflection, and not by refraction; otherwise she should be diaphanous, and would appear most illuminated when near the Sun, and be full in her conjunction; and obscure in her full; because she's lower then the Sun, and so in conjunction



junction his light would appear through her; and in her full, which is her opposition, the Sun's light would pass through her towards Heaven, not towards us. Wherefore, as to the spots of the Moon, it may be said, in general, that she is unequally scabrous, and the dark parts are nearest smoothness, and so make a more orderly reflection, but another way then to the Earth, the Angles of Incidence and Reflection being not dispos'd thereunto. But they are not perfectly smooth, because they transmit a little light to us; which they could not do being perfectly smooth, unless at a certain time when the Sun were so dispos'd, as that his Image might be seen in those parts, as in a Spherical Mirror. The other more scabrous parts making a disorderly and irregular reflection, are seen on all parts; as if you fasten pieces of glass, marble, or the like smooth bodies, to a wall enlighten'd by the Sun, the rough parts of the wall will appear very bright, and the smooth obscure. But because we know not truly what is the matter of the Heavenly Bodies, we can only say, for proof of this unevenness in the Moon's body, that the rougher parts are more hard, and the less rough are liquid; for then the liquor surrounding the centre of the Moon, as the water doth about that of the earth, will have a surface more approaching to smoothness as the water hath; and this, without inferring it compos'd of earth and water, but of some celestial matter like to our elementary, and whose fluidity or hardness doth not prejudice its incorruptibility; those who hold the Heavens solid or liquid, holding them equally incorruptible. Unless we had rather say, that the body of the Moon being all of the same hardness, may nevertheless have parts unequally rough and smooth.

The Third said, That he apprehended two causes of these spots. First, the diverse conformation of these celestial bodies, which being no more perfectly round then the earth (which nevertheless would appear spherical to us if it were luminous) make shadows inseparable from bodies of other figure then the plain. Secondly, from the weakness of our Sight, which as it phancies colours in the clouds which are not in them, (no more then the Air is blew, though it appear to us, and we paint it such;) so being dazled by a luminous body, and the visual ray being disgregated, it makes sundry appearances therein, which can be only dark and obscure in a thing which is lucid. For I would not attribute these spots, which represent the lineaments of a face, to such a phancy as that of *Antiphon*, who saw his own picture in the Air, since they are observ'd by all people after the same manner: but the weakness of our Sight may contribute something thereunto. For if we say that every celestial body is an earth, and that the bright part is the terrestrial mass, and the dark the water, or the contrary; it will be necessary that this earth also have its Heaven, that its stars, and so to infinity.

The Fourth said, That they who have imagin'd spots in the Sun,



Sun, had them in their Eyes, it being improbable that there is any defect of light in that Star which is the fountain of it; but they are produc'd by the vapours between the Sun and the Eye, and therefore appear not at full noon, and change with the vapours and clouds. As for those which appear in the Moon's face, there is great diversity of opinions; as of the *Rabbines* and *Mahometans*, of the ancient Philosophers reported by *Plutarch* in his treatise thereof, and of the moderns. The first are ridiculous, in believing that *Lucifer*, by his fall, and the beating of his wings, struck down part of the light of this great Luminary, or that the same was taken away to frame the Spirits of the Prophets. Those Philosophers who attributed the cause to the violence of the Sun-beams reflected from the Moon to our Eyes, would conclude well if the like spots appear'd in the Sun as do in the Moon; because the rayes coming directly from the Sun to the Eyes have more brightness, and dazle more, then those reflected by the Moon. Nor can these spots be the Images of the Sea and its Streights; for the Ocean surrounding the Terrestrial Globe, that part of it which remains in the lower part of the Globe cannot send its species so far as the Moon, whilst she enlightens the upper part; the Moon being able to receive onely the species of that part which she enlightens, according to the principles of *Theodosius*, who teaches us that from the Zenith of one Hemisphere right lines cannot be drawn to the other Hemisphere, by reason of the solidity of the Globe; the caliginous fire, the wind, the condensation of the Air, and the like opinions of the *Stoicks*, and other ancient Philosophers, though erroneous, yet seem to me more probable then those of some Moderns, who will have the Moon inhabited, not considering that 'tis too small to make an habitable earth, her body being the fortieth part of the Terrestrial Globe, and its surface the thirteenth of that of the Earth, or thereabouts; besides, that she comes too near the Sun, whose Eclipse her interposition causeth. They who make the Moon and the Earth to move about the Sun, may indeed, with *Copernicus*, explicate the most signal motions and phaenomena: But the stability of the Pole, and the Stars about it, requires a fix'd point in the Earth, with which the inequality of the dayes and seasons could not consist, if the Sun were stable and in one place. Moreover, the difference of dayes proceeds from the obliquity of the Ecliptick, which is the cause that the parallels of the Solstice are nearer one to another, and the dayes then less unequal then at the Equinoxes, which cannot hold good in this Scheme. But 'tis less reasonable to say, that the hollow places in the Moon seem dark; for by the rules of perspective, they should remit the Sun's rayes redoubled by their reflection, by reason of the cone which is form'd in hollow parts; nor can they be eminences, which appear obscure, because in this case the spots should not appear so great, or not come at all to us, being surpass'd by the dilatation of



of the rayes redoubled by the conical figure of the cavities of the Moon. 'Tis therefore more probable that as a Star is the thicker part of its Orbe, so the Moon hath some dense then others which are the most luminous; as those which are more diaphanous, letting those beams of the Sun pass through them; which they are not able to reflect for want of sufficient density, seem more obscure, and make the spots.

The fifth said, The spots of the Sun cannot be from the same causes with those of the Moon, which experience shews us changes place and figure, those of the Sun remaining always alike, and in the same figure; whereby we may also understand the validity of what is alledg'd by some, That the Sun moving upon his own Centre carries his spots about with him: For granting this motion, yet if these spots interr'd in the Sun, they would always appear in the same manner, and at regular times, by reason of the Sun's equal and uniform revolution. Nevertheless, the most diligent observers find that some of them are generated, and disappear at the same time in the Solar face. Which would incline me to their opinion who hold those spots to be generated out of the body of the Sun, in the same manner that exhalations are out of the bosom of the earth; did not this derogate from the receiv'd incorruptibility of the Heavens. For it cannot be any defect of our sight, mistaking the vapours between the eye and the Sun for spots inherent in his body, since they are seen by all, almost in the same number and figure; which should alter with the *medium* if this were the cause of them; and 'tis impossible that vapours should follow the Sun in his course for so many days together as one of these spots appears; for it must move above 6000 leagues a day, though it were not much elevated above the earth. Nor do our Telescopes deceive us, since without them we behold these spots in a Basin of water, or upon a white paper in a close Chamber, whereinto the Sun is admitted only by a small hole. Nor, Lastly, are they small Stars, call'd by some *Borboneæ* and *Mediceæ*, because we perceive both their nativity and their end.

Upon the second Point 'twas said, That he who said a man hath as many domestick enemies as servants, imply'd that we are to use them as such, converse with them as in an Enemy-Country, and according to the Counsel of good Captains build some Fort therein for our security. Which Fort is severity, and its Bastions the reasons obliging us to this rigour. The first of which is drawn from the contempt ensuing upon gentleness and familiarity, and from the respect arising from severity and gravity, especially in low and servile souls, which being ill educated would easily fall into vice; to which men are more inclin'd then to virtue, if they be not restrain'd by fear of punishment, which makes deeper impression upon their minds then the sweetness and love of virtue wherewith they are not acquainted.

Besides

II.

Whether 'tis best to use severity or gentleness towards our dependents.



Besides that servants are apt to grow slack and luke-warm in their duties, unless they be spurr'd up by severity. And 'tis a great disorder when a servant becomes equal to his master, as it happens by mildness; nor was Paganism ever more ridiculous then in the *Saturnalia*, when the servants play'd the masters. It must likewise be confess'd that severity hath a certain majesty which exacts such honour and service as gentleness cannot obtain. By this virtue *Germanicus* became so considerable, and was so well obey'd; as, on the contrary, *Nerva's* mildness weakned and enervated the Roman Commonwealth. Was ever King more severe, and better obey'd then *Tamberlane*, or any family more powerfully establish'd then that of the *Ottamans*, which owes all its grandeur to severity and rigour, the sole upholder of Military Discipline, a good Captain never pardoning any in war. For the misery of inferiors, whether true or imaginary, joyn'd with the natural desire of liberty, easily carries them to rebellion, if fear and rigour tye not their hands. Thus the war undertaken by the Servants against their Masters at *Rome* was the effect of mildness; nor was there any other means to repress it but by blood and slaughter; as another Nation once routed an Army of their Slaves with Whips and Stirrup-leathers; the sight of which reviving the memory of their former scars was more effectual then ordinary weapons. Therefore when the Law gave power of life and death over slaves, it intended not to authorize homicide, being sufficiently careful of men's lives; but judg'd it expedient to retain these persons in their duty by the apprehension of death. The reason which once oblig'd the Senate to put 600 innocent slaves to death, for an example to others.

The Second said, whatever security there may be in severity, it hath effects too violent to be durable. Man's mind is too delicate a piece; and whatever difference fortune hath put between men, their spirit, which is the same in all, is too noble to be curb'd with a cudgel and biting of brutish severity; which on the other side causes hatred, as mildness doth love, and is therefore to be prefer'd; there being none but had rather be lov'd then hated, and no way to be belov'd but by loving. For the same Proverb which reckons servants amongst necessary evils, reckons a wife so too; and the tyrannical Aphorism, So many servants so many enemies, is not true but in those who have cause given them to be so. And indeed, a Master's condition would be the worst of all, if he must live always at home upon his guard, as in a den of Lyons or Tygres. For, what is alledg'd, that servants are ill bred and ill-natur'd; and seldom acknowledge the obligations they have to their Masters, is indeed too true in the most eminent conditions: but that which we call ingratitude in them; comes especially from the rigour of our deportments, which offuscate the benefits and commodities they receive from us. Their low fortune is unpleasant enough, with-

out



out making them desperate to our prejudice. And indeed, the Laws which have allow'd most severity to Masters over their slaves, have sometimes been insufficient to secure them from the fatal strokes of their discontent; as many Histories of Roman Masters murder'd by their slaves (notwithstanding that rigour of *Silanus's* Law) and the dangerous revolts of *Spartacus*, and others in the Provinces, sufficiently testifie. Whence it appears, that a man must be in as much fear of his servants as he would be fear'd by them; and that suspicion and diffidence is as well the mother of treacheries as of safety, since it seems to leave those whom we distrust to do all the mischief they can. For to pretend severity, for avoidance of contempt and too great familiarity, in my judgement speaks great weakness of mind; and as if dominion and majesty could not be more agreeably maintain'd by clemency: and gravity affected by rigour is as ridiculous as odious; yea 'tis to fall into an extremity too vicious, to make one's self hated for fear of being sleighted, and to appear cruel to avoid being familiar.

The Third said, That although gentleness be more acceptable than severity, yet 'tis also more dangerous: witness that of *Lewis* the Debonnaire, and *Eli* the chief Priest, towards their children, for whom the Wiseman recommends the rod, as *Aristotle* doth discipline for servants and slaves: and the indulgence of good husbands to their wives is the most apparent cause of the luxury reigning in that Sex, to say no worse. A family is a kind of Republick, and the principles of Oeconomy and Policy are much alike. Now we see States are preserv'd by the exact severity of Laws, signifi'd by the Rods, Axes, Maces and naked Swords, born by Magistrates, and the Scepters of Kings. But no Magistrates have Ensigns of gentleness, as being more dangerous, because directly oppos'd to justice, all whose rights and priviledges are preserv'd by severity. And hence clemency is not permitted to be us'd by inferior Judges, but that it may be more rare, 'tis reserv'd to Princes themselves who are above Laws and Customs.

The Fourth said, It belongs to Prudence to determine when, how, where and why, ways of gentleness or severity are to be us'd; some minds being exasperated by severity, like those tempers on which violent medicines work least; and others turning sweetness into bitterness, whilst they think it to proceed from timorousness or impotence, and so take license to do any thing, whom benigne medicines act not. But, to speak absolutely, the way of gentleness must always precede and be found unprofitable before coming to rigour, according to the precept of the Physitians, who use fire and cauteries only when the malignity of the malady will not yield to ordinary remedies, which the ancient Arabians never us'd till having first try'd a diet and regiment of living. Nor do's wise Nature ever use violence till she is forc'd to it by some potent cause, as the



fear of Vacuity, or the penetration of Dimensions. In all the rest of her actions she proceeds with sweetness, wherewith she hath so endow'd man, that the same humour which gives and preserves his being, namely, Blood, is the cause of Clemency and Gentleness, call'd for this reason *Humanity*. Wherefore 'tis more sutable to our nature then to lean towards its contrary; and the way from gentleness to rigour is more rational and natural then from rigour to gentleness. For when a rough master speaks flatteringly to his servants, they are no more mov'd therewith then a Horse accusom'd to the spur is with the voice alone. Yea, a Horse that will not stir for words will go for the spur; and Masters who incessantly rate and beat their servants, are like those ill Horse-men who have alwayes their spurs in the Horses sides, where they make by this means a callous scar, insensible to the most quick stimulations.

#### CONFERENCE XCIV.

I. *Of the Eclipses of the Sun and Moon.*

II. *Whether all Sciences may be profitably reduc'd to one.*

I.  
*Of the Eclipses of the Sun and Moon.*

**T**Is an ancient saying, that the Luminaries have never more spectators then when some Languishment befalls them; because ordinary effects, how excellent soever, affect us less then such as are not common, whose novelty raises admiration in our minds, otherwise much delighted in considering others defects and imperfections. Those of the Celestial Bodies are deficiencies of light, call'd Eclipses, which happen by the diametrical interposition of some opake body. To speak onely of those of the Sun and Moon; the former is caus'd by the shadow of the Moon upon the Earth, and the latter, by that of the Earth upon the Moon, by reason of their vicinity. For the Sun's course being alwayes in the Ecliptick of the Zodiack, which they ordinarily, but improperly, call a line, being rather a plane superficies, and a great circle, cutting the sphere into two equal parts, in which the Sun ascends in his *Apogæum*, and descends in his *Perigæum*. The Moon likewise, according to her proper motion, is found every moneth in the same sign with the Sun; which is call'd her Conjunction, and makes the New Moon. Yet with this difference, that she is either in the South or the North, in respect of the Sun in the same sign, unless when passing from one to another she crosses the Ecliptick, wherein the Sun makes his course in the middle of such sign; in which intersection is made the Eclipse of the Sun, the Moon being then directly between the Sun and our sight. This point of intersection is call'd the Dragon's head, when she moves from the South to the North,



North, and the Dragon's taile when from the North to the South. Now forasmuch as the Lunar Body is less then that of the Earth, and much less then that of the Sun, scarce taking up the latitude of the pyramide form'd by the visual rayes; hence the Suns Eclipse is never either total or universal, the Moon not being capable to hide the body of the Sun from those who behold him from the Earth in another situation. After her conjunction with the Sun, she with-draws from him by little and little, increasing in roundness and light, till she become fully opposite to the Sun, at which time half of her Globe is perfectly enlightned; and then 'tis Full Moon. Now because in this perfect opposition the Earth casts its shadow upon that part of the Ecliptick which is opposite to the Sun, if in this opposition the Moon happen to cut the Ecliptick, she enters into the Earths shadow, and becomes darkned by privation of the Suns light. So that the Moon is never eclips'd but in her opposition when she is at the Full, nor the Sun but at New Moon when she is in conjunction. Whence that eclipse of the Sun which appear'd at our Lords death was miraculous, the Moon being then naturally unable to eclipse the Sun by her interposition, because she was directly opposite to him, and at the Full.

The Second said, That in this common explication of Eclipses, the Parallaxes of the Sun and Moon cause many difficulties in their calculations, being the cause that the same Eclipse is total to some, partial to others, none to others, and to some sooner and longer then to others; besides, that 'tis requisite to have as many new calculations as there are different places. But a general way whereby to explicate Eclipses so perfectly, that one single calculation may suffice for the whole Earth, and oftentimes for several Eclipses, cannot be had without knowledge of the distances, magnitudes and shadows of the Sun, the Earth, and the Moon, which are these; the Sun is distant from the Earth about 1200. semidiametres of the Earth, which amount to almost 2000000. of our leagues. The Moon is distant from the Earth near 56. semidiametres of the Earth, making about 90000. leagues, or the two and twentieth part of the Sun's distance: Whence at New Moon the distance of the Moon from the Sun is 109000. leagues; and so the Sun is distant from the Earth twenty one times more then the Moon. As for the magnitude of these bodies, the Diametre of the Sun is about six times as big as that of the Earth, and twenty one times as great as that of the Moon; and consequently exceeds the one five, and the other twenty times. Whence it follows, that the length of the shadows of the Earth and the Moon being proportionate to their distances from the Sun, as their Diametres are to that Excess, the shadow of the Earth shall have in length the fifth part of its distance from the Sun, namely, 400000. leagues, and the shadow of the Moon the twentieth part of her distance from the Sun, namely, 95500. leagues. These shadows of the Earth



and the Moon are of a conical figure, the base whereof is one of the circles of the Earth or the Moon, and the cusp is the point remov'd from their bases, according to the abovesaid distances. Which figure proceeds from the Sun's being greater then the Moon or the Earth, and all three of a round or spherical figure; and the conical shadow is a perfect shadow admitting no direct ray from the Sun; but there is an imperfect shadow about the same, admitting rayes from some parts of the Sun, but not from all. And as the imperfect shadow diminishes conically, so the imperfect increases conically; so that the Moons imperfect shadow reaches 90000. leagues, which is the distance of the Moon from the Earth; occupying round about the perfect shadow near 1000. leagues on each side; because 'tis in proportion to the Diametre of the Sun, as the distance of the Earth from the Moon is to the distance of the Moon from the Sun. Now since the shadow of the Moon, which is 95500. leagues, reaches further then the Moons distance from the Earth, which is but 90000. leagues, it follows that at New Moon when she is directly between the Sun and the Earth, (which happens when the Moon is twenty degrees before or after, either the head or the taile of the Dragon) the point of her shadow reaches to the Earth, covering sometimes near 30. leagues round of Earth with perfect shadow, which is surrounded with another imperfect one of a thousand leagues. And as the Moon by her proper motion passes beneath the Sun from West to East, so her shadow traverses the Earth from the West part to the East; so that whereever the point of the perfect shadow passes, there is a total Eclipse of the Sun; and where the imperfect shadow passes, the Eclipse is onely partial, but greater according as you are nearer the perfect shadow. From these consequences may be drawn, That the Eclipse of the Sun is seen sooner in the West part of the Earth then in the East, by almost five hours; which is the time that the shadow of the Moon is crossing the plane of the Earth. That one and the same Eclipse of the Sun cannot be seen in all parts of the Earth, because, though as the shadow moves, it crosses from West to East; yet it is not large enough to cover the whole Earth from North to South. That in one and the same year there are at least two Eclipses of the Sun visible in some parts of the Earth, sometimes three, and four at most. For every half year in which the Sun passes by the Dragon's head, if the New Moon be made at the same head, there will be an Eclipse, which will be total in the torrid zone, and partial in the temperate zones, a thousand leagues or more on either side; and this will be the sole Eclipse for this half year. If the New Moon be made within ten degrees before the Dragon's head, there will be onely this Eclipse in this half year, which will be total, sometimes in the torrid zone, sometimes in the southern temperate zone, and partial, a thousand leagues or more every way. The like will happen if the New Moon be  
made



made within ten degrees after the Dragon's head, but a total Eclipse will be seen in the torrid zone, or else in northern temperate. But if in the same half year the New Moon be made between ten and twenty degrees before the head, there will be an Eclipse in the cold zone, and at the extremity of the temperate southern zone: But then the New Moon immediately following will be made between ten and twenty degrees after the head, and there will be another Eclipse seen in the frigid zone, and at the extremity of the northern temperate zone; which two Eclipses, most commonly, are but partial. The same must be said of the other half year in which the Sun passes by the Dragons tail, saving that the parts which precede the taile regard the northern part of the Earth; and those which follow, the southern; which happens quite contrary at the head. Which we must observe, is diametrically opposite to the taile, and that they remain not alwayes in the same place, but move round the Heaven regularly in about nineteen years, contrary to the order of the signes from *Aries* to *Pisces*, and from thence to *Aquarius*, backwards. As for the Eclipse of the Moon, we must consider the shadow of the Earth, which is cast into the Ecliptick in the part opposite to the Sun; and because the same is 400000. leagues long, it follows that it crosses the Heaven of the Moon, and beyond; so that although it be diminish'd at the Heaven of the Moon, yet in that place it hath near one degree a half diameter, the Moon not having much more then one degree. And consequently, if the Moon be at the Full, either in the head or the taile of the Dragon, or else in thirty degrees before or after, the Moon will pass into the shadow of the Earth, and be either wholly eclips'd or in part, according as she shall enter wholly into the perfect shadow. For here the imperfect shadow is not considerable, the Moon not being eclips'd so long as she receives the rayes of any part of the Sun; whence it follows that the Moon naturally loses her light, but not the Sun, which the inposition of the Moon onely keeps from our Eyes; that the Eclipse of the Moon is seen at the same time by all those who can see it. And that there can be but two in one year, namely, one in every six moneths; sometimes but one in a year, and sometimes none at all; namely, when the Full Moon happens between thirteen and seventeen degrees, before or after the head or the taile of the Dragon.

Upon the Second Point it was said, That the desire of knowing is very charming; but mans life is too short to satisfie the same, unless the great number of Sciences be reduc'd into one, their multitude requiring a volumn to contain their names alone, and this with their length being the principal causes of the little fruit gather'd from them, and the distaste which they beget. The way of abridgment would be to retrench out of each all matters unprofitable, or not pertaining to the Science,

II.  
Whether all  
Sciences may  
be profitably  
reduc'd to  
one.

as



as are most Metaphysical Questions which are treated of in Logic; Natural, in Medicine; Moral, Natural, and Juridical, in Divinity, to avoid repetitions: And thus the fifth and sixth Books of *Euclid* might be reduc'd into one, since in the latter he demonstrates by number what before he had demonstrated by lines; yea, the 117 Propositions of his tenth Book might be demonstrated in another order, and compris'd in less than thirty; as the five following Books, the three of *Candalus*, the Sphericks of *Theodosius*, the Conicks of *Apollonius*, the Principles of *Archimedes*, and others, which make above 500 Propositions, might be reduc'd profitably to less than a hundred. But above all, 'twould be requisite to be careful of laying down good Principles, and teaching these Sciences with order; and for this purpose to retrench all unprofitable Books, whose numerousness causes confusion, and is now more hurtful than their scarcity was heretofore; according to *Justinian's* example, who reduc'd all the Law-books of his time into two Volumns, the *Digests* and the *Code*; and that of the Jews, who compris'd all things that can be known in one single Science call'd *Cabbala*, as the Druids did their Disciplines under certain Maximes and Aphorisms; and *Raimond Lullie's* Art teaches to know and speak of all things; which might be done, if instead of spending the fittest time of our Age (as we do unprofitably) in learning to speak Latine and Greek, we employ'd it, by the example of the Ancients, upon the Mathematicks, History, and all Sciences depending more upon memory and phancy than solidity of Judgment, which might afterwards be form'd in a short time by Logic, in order to its being exercis'd in the knowledg of things natural, supernatural, and moral; which might easily be obtain'd in less than five years, if all superfluities were retrench'd.

The Second said, Because the possibility of a thing must first be understood, before the means of attaining it sought, 'tis requisite first to agree whether all Sciences are reducible into one; before the ways to do it be inquir'd. And although at first sight it seem possible, because they presuppose one another, and there is such a connection in their principles that some depend upon the demonstration of others; yet I conceive this re-union of all into one would seem rather a monster, or a thing like the confusion and disorder of the ancient Chaos, than a true and legitimate Discipline. For 'tis easier to destroy the present method than to establish a better. Moreover, how is this union possible, since the foundations and principles of Sciences are controverted by the Masters who profess them? For setting aside those indemonstrable principles which are very few, and need only be heard that they may be granted, and may be learn'd in less than an hour; if we make an induction through all the Sciences, we shall find nothing certain in them. Has Morality, whose chief object is Beatitude, found one sole point wherein to establish it? Are not part of *Aristotle's* opinions overthrown by *Galen*? who

on



on the other side is counter-check'd by *Paracelsus* and all the Chymists, who pretend to cure diseases by their likes, as the former doth by their contraries? Law, being founded upon the instability of humane will, hath as little certainty: And Divinity it self, which is the Science of Verities, is divided by the Sects of the Nominals, of *Scotus*, and *Thomas*; not to speak of the Heresies which incessantly assault it. And if we compare it to other Sciences, it overthrows most of their Principles, by establishing the Mysteries of Faith. This is it which made the wisest of men, and who perfectly understood all Sciences, to say, *That they were but vanity*: And were this union possible, he hath so highly recommended sobriety of knowing, that 'twould be a kind of intemperance to desire to know every thing, no less presumptuous by exceeding the bounds set by God to each of our capacities, then ridiculous, by attempting to make a necessary and infallible thing of many contingent and uncertain, and not yet agreed upon.

The Third said, That Unity, which is one of the Transcendents, co-eternal and co-essential to Good, ought to be the attribute of all good things, and consequently of Discipline, which likewise being the good of the Understanding, which is one, cannot be comprehended by it, but by their becoming conformable the one to the other. If any reply, That 'tis enough that things enter into it successively, and so need not be one, (which would be inconsistent with their nature); I answer, That the series and order which is found in those things belongs to one single Science; otherwise they would have no connection together, and by this means could not be made use of to purpose. And since all our Notions depend one of another, our Discourse being but a continual Syllogism, whose Conclusions depend upon the Premises, it follows, That the Syllogism being the subject but of one Science, they all pertain but to one Science; whence Philosophy is defin'd the knowledge of things divine and humane; that is to say, of every thing. Indeed; since all moral Virtues are so connected together, that 'tis impossible to possess one without possessing all; the Sciences (which are the intellectual virtues) must be streightly united likewise; and the more, for that they have but one most simple subject, to wit, the Understanding. And since the means of Being are the same with those of Knowing, every thing that is in the world having the same Principles of existence must also have the same principles of knowledg, and so make one sole Science; because Sciences differ only by reason of their principle; all which too depend upon one Metaphysical principle, namely, That one and the same thing cannot *be* and *not be*; which proves all others; and therefore it follows, That there must be one sole Science general, comprehending all the rest. For to say, That every several manner of handling a thing makes a distinct Science, is to imitate him who would make an Art of every Simple.



Simple. Lastly, Nature would not have given us a desire of knowing every thing, if this desire could not be accomplished: But it is impossible to be so, whilst the Sciences remain so diffuse as they are at present.

## CONFERENCE XCV.

### I. *Of the diversity of Wits.* II. *Of New-years Gifts.*

I.  
*Of the diversity of Wits.*

**D**iversity is found in all things, but no where more remarkably then in man; for, not to speak now of Bodies, that of Minds is so great that none have been ever found to have the same inclinations or motions, or that have been so much as like to themselves; the Mind being an indefatigable Agent, varying postures every moment, according to the several occurrences of new objects, to which it becomes like. But though the division of Wits be so unequal and disadvantageous to some, that there's observ'd as great difference between one man and another as between some men and a brute, yet all are well pleas'd with their lot, and every one thinks he hath enough to spare, and to govern and instruct others; so conceited are we of what belongs to our selves. Now the cause of this diversity of Spirits and Inclinations seems to be the various constitution of bodies, whose temper the motions and inclinations of the Soul follow; and this temper being incessantly mutable by causes internal and external, not only in the four seasons of the year, but also in the four parts of the day, hence ariseth the diversity of the actions and inclinations of the Mind, which is so great, that the same thing pleases and displeases us in a little space of time.

The Second said, That the Faculty which they call *Ingenium* or *Genius*, cannot proceed meerly from the temperament of the four qualities: For we see those that come nearest the temperament of man are the most stupid; and Ages, Seasons, and Aliments changing those qualities continually, should also incessantly change mans wits. But 'tis a quality or ray of the Reasonable Soul, which finding the four qualities variously mix'd in every one, makes use thereof in different operations; and so this difference is only accidental, not essential. Moreover, we see, that whatever difference be conceiv'd in Minds, yet their fundamental inclinations are alike, the hatred and aversion of evil things, and the desire and prosecution of good; if the means imploy'd to these purposes be different, this proceeds from a particular imagination caus'd by the constitution of the humours, which makes this difference appear, as through a colour'd-



lour'd glass. So the choler of the Souldier puts him upon seeking honour and profit in Arms; the Advocate is mov'd to seek them in the Sciences, either by his more moderate temper, or by the example and pleasure of his Ancestors. Yet this Proportion cannot change the essence of Wits, but only the appearance; as a Painter out of the mixture of four or five colours makes infinite others, which differ only in shew.

The Third said, There are many partial causes of this variety, and they may be various to infinity, according to the various haps they meet with, like the letters of the Alphabet diversly combin'd; yet they may be referr'd to three principal, Nature, Art, and Fortune. The Nature of Man is the Soul and the Body. Souls cannot differ specifically, as some hold; for then a species should be part of an individual, since the Soul makes a part of man; which is absurd, because the species must be predicated of many individuals. Yet I think there is some individual difference between our Souls, not wholly depending upon the conformation of the organs, or the temper of humours, because excellent Souls have been found to lodg in ill-made Bodies, as those of *Socrates* and *Æsop*; and the contrary. Art may also contribute much to this diversity, especially in Youth, when wits are more flexible; some very dull ones having been incredibly improved by study. So also may Fortune and Occasion; amongst others, the place of residence; as the fertility of *Palestine* in Pasturage made the Jews Shepherds; and the plains of *Ægypt*, fitted for tillage by the inundation of *Nilus*, made the *Ægyptians* Plow-men. Those that inhabit the coasts of the Sea are Merchants, in regard of the conveniency of transportation. And necessity, which forces our wits upon sundry things, makes the Arabians, who live in an unfertile soil, for the most part Thieves; as sterility has constrain'd others to make war upon their neighbours. The diversity of Climates, Winds, Waters, Diets, Exercises, and generally all external and internal things, making some impression upon the temper, makes likewise some diversity in Wits.

The Fourth said, That diversity of actions cannot proceed but from diversity of forms; and therefore those of men must be unequal. 'Tis likely the Souls of *Aristotle*, *Socrates*, and the like great Philosophers, were of another stamp than those of people so stupid that they cannot reckon above five. And who dares say that the Soul of *Judas* was as perfect as that of our Lord? Moreover the Wise man saith, *Wisd. c. 8.* that he receiv'd a good Soul. *Plato* distinguishes Wits into as many Classes as there are Metals. And experience shews us three sorts in the world; some few are transcendent and heroical, being rais'd above the rest: others are weak and of the lowest rank, such as we commonly say have not common sense; others are of an indifferent reach, of which too there are sundry degrees, which to attribute wholly to the various mixture of elementary material qua-



lities, is to make a spiritual effect, as the action of the Understanding is, depend upon a corporeal cause, between which there is no proportion. And 'twere less absurd to ascribe these effects to the divers aspects of the stars, whose influences and celestial qualities are never altogether alike.

The Fifth said, That wit is a dexterity or power of the soul, seated in the Cognoscitive rational faculty, not in the Appetitive or Sensitive. 'Tis a certain capacity of the Understanding to know things, which is done either by invention or instruction of others. Invention requires acuteness of wit and judgement. Learning, docility, and likewise judgement. Memory serves as well to invent as to learn. And thus three things are requisite to Wit, namely, Memory, Acuteness, and Judgement. The first furnishes matter and sundry things, without supply whereof 'tis impossible to have a good wit. The Judgement disposes things in order, resolving the whole into its parts when 'tis requisite to learn or teach, and reducing the parts to their whole when 'tis requir'd to invent, which is the more difficult; our mind finding it of more facility to divide things then to compound them. Whence Inventors of Arts, and things necessary to life, have been plac'd in the number of the gods. But, because each of these three faculties require a contrary tempera-  
ture; Memory a hot and moist, as in children; Acuteness of wit, a temper hot and dry, as that of Poets and Magicians; Judgement, a cold and dry, proper to old men; hence it is that a perfect Wit which excels in all three is rarely found.

II.  
Of New-  
years Gifts.

Upon the second Point 'twas said, That the Poet who said, that he who begins a work well hath already done half of it, spake no less judiciously of humane actions then those who advise to have regard to the end. For, as this crowns the work, so 'tis not to be doubted but a good beginning makes half of this wreath, and that both joyn'd together perfect the circle, the Hieroglyphick of the revolution of years. Hence we see antiquity contriv'd to begin them with some festival solemnities, with intent thereby to consecrate their first actions to the Deity. The Hebrews had their most remarkable feasts in the moneth *Nisan*, the first of the year, answering to our *March*; and amongst others that solemn Pasover, when they invited their Neighbours to the feast of the Lamb. The Greeks began their Olympiads with Games and Sacrifices to *Jupiter*; and the superstitious Egyptians not only took omens from what they first met every day, but made it their god for that day. And being next the divine assistance men value nothing more then the favour and good will of their friends, 'tis no wonder if after sacrifices and publick ceremonies they have been so careful to continue this mutual friendship by feasts and presents at the beginning of the year, which some extended to the beginnings of moneths, which are Lunar years, as the Turks do at the beginning of  
each



each Moon, of which they then adore the *Croissant*. And if they who make great Voyages, after having doubled the Cape of *Good Hope*, or some other notable passage, have reason to make feasts and merriment, for joy of the happy advancement of their Navigation; those who are embark'd together in the course of this life, and whom the series of years (which may be call'd so many Capes and Points mark'd in the Chart of our Navigation) transports into new Countries, ought to rejoyce with their friends for the dangers which they have escap'd, and felicitate them for the future by presents, and wishes, in the continuation of this journey. Or else considering the difference of years as great as that of Countries, we renew our correspondencies by presents, as hospitalities were anciently by those which they call'd *Xenia*, which is still the name of our New-years Gifts; since in respect of the great alterations hapning in those years, we may be said to be new Guests, or Hospites of a New-year.

The Second said, That this laudable custome was founded upon reason and example, our Druides being wont to gather with great ceremonies the Mistletoe of the Oak, which they consecrated to their great *Tutates*, and then distributed to the people, as of great virtue. Whence our New-years Presents are still call'd in many places \* *Guy-l'an-neuf*. But the first day of the year was not the same with all Nations; some of our first Kings began it at *S. Martin's* day, as appears by the dates of some old Ordinances, and the yet continu'd openings of our Parliaments; whence possibly remains the fashion of making good cheer on this day. The Romans us'd this custom, sometimes in *March*, which was the first moneth of the year, when the year had but ten moneths, each of 36 days; and afterwards on the Calends and first day of *January*, which was added with *February* to the other ten by *Numa*. And ever from the foundation of *Rome*, *Tatius* and *Romulus* appointed a bundle of *Vervan* to be offer'd with other presents for a good augury of the beginning year. *Tacitus* mentions an Edict of *Tiberius*, forbidding to give or demand New-years Gifts, saving at the Calends of *January*, when as well the Senators and Knights, as all other Orders brought presents to the Emperor, and in his absence to the Capitol. Of which I observe another rise in the cense or numeration of the people, which was made in the beginning of the Lustres or every five years, and began under *Ancus Martinus*; at which time money was cast amongst the people, as the Emperors did afterwards when they review'd their Armies at the beginning of each year, honouring the most eminent Soldiers with presents. Now reason too is joyn'd with this practise; for as we take presages from the first occurrences of a day, week, or year, so none are more acceptable then gifts, which gratifie the more because they come without pains or expence.

\* *Guy*, fig.  
Mistletoe.



The Third said, That the three sorts of goods being found in the reception of presents sent us by friends ; (for they testify the honour which they do us ; the least present brings some profit to the receiver ; and no benefit is receiv'd without some pleasure) 'tis no wonder if men who have from all time assign'd some day to every thing which they esteem'd good, have also thought fit to solemnize the Feast of Presents or Benefits, and to testify their esteem thereof have made the Year begin by it, for good augury. Indeed, nothing is so powerful as Presents, because they make and reconcile amity, the greatest Gift which God hath given to men. They pierce the best-guarded Gates, as *Philip of Macedon* said ; and *Jupiter* found nothing so fitting as a Golden-showre whereby to convey himself into *Danae's* lap. *Homer* with his Muses is thrust out by the shoulders if he brings nothing with him ; whereas a course Varlet laden with booty is admitted even into the Closet. Whereof men are so persuaded, that there was never a Religion but had its offerings. And God forbids any to come before him with empty hands. Especially, gifts are agreeable, when the proportion of the receiver with the giver is observ'd. So the poverty of the Greek Epigrammatist made *Augustus* well pleas'd with the peny which he presented to him. But the price of a thing, or (in defect thereof) its novelty, or the excellence of the work-man-ship, the place and time is most considerable, this latter making such things as would have no acceptance at another season, pass for courtesies in the beginning of the year.

## CONFERENCE XCVI.

### I. Of Place. II Of Hieroglyphicks.

#### I. Of Place.

ALL created things having a finite and circumscrib'd essence, have also a proper place which serves for a bound to their nature, which is the principle of their motions and actions, which cannot be but in some place ; the six differences whereof, namely, above, below, before, behind, the right side and the left, sufficiently prove its existence, since differences presuppose a genus. But its nature and essence is no less hard to be known, then its existence is plain. To omit the sundry considerations of its several Sciences, here we understand, by place, that which contains things plac'd ; and 'tis either common to more, or proper to one alone ; this, either external or internal : and generally, 'tis either Physical or Mathematical, or rather the same sometimes, provided, and sometimes de-vested of accidents in its pure dimensions. This place cannot be the space of every body, because space is nothing else but a  
*vacuum,*



*vacuum*, which is wholly opposite to place, which being an affection of body must be something of reality. 'Tis therefore well defin'd the first internal and unmoveable surface of the ambient body. First, that is, immediate and proximate, because it must be equal to the body which it contains; internal, for if it were the external surface, it would be greater; as vessels are larger then what they contain: Lastly, it must be immoveable; which is not to be understood of the real place or real surface environing the body (because this surface changes when the body changes place, or whilst the body remains unmov'd the ambient air is chang'd every moment) but of that place or imaginary surface which encompasses the body on all sides, remaining always immoveable. Which is more satisfactory then to say, as some do, that the place of bodies is immoveable; although they and their surfaces change place; because from thence to the centre and principal parts of the world there is always the same distance and respect.

The Second said, That *Aristotle* shew'd more subtilty then truth, when in stead of defining place internally corresponding to the extension of the parts, he defin'd it by an outward circumference; by which account, Souls, Angels, and other spiritual substances should not be contain'd in a place, as 'tis certain they are (though *definitively*, not *circumscriptively*) in regard they move from one place to another. Yea the whole world should not have a place, since it cannot be contain'd by any thing, but contains all. 'Tis also incongruous to say, with some, that the place of the world is its centre, which is too small to design the place of so great a body; and if a point were the place of the world, the place of a Pismire should be greater then that of the world. What others say, That place is only the extension of things, cannot consist with the place of spiritual forms, which yet have a distinct extension as other corporeal forms have; and we change place every moment, although we have always the same extension. I conceive therefore, the place being relative to the thing plac'd ought to be defin'd by it, according to the nature of relatives; and so place is nothing but the space occupi'd by the body plac'd, which is that long, broad and deep interval which receives the same. Moreover, space which would be void if one body did not succeed another, hath all the conditions requisite to the nature of place. For first, 'tis nothing of the thing plac'd, being a pure nothing. 2. 'Tis immoveable, being of it self incapable of motion. 3. 'Tis equal to the body plac'd, the whole space answering to the whole body, and every part to every part. 4. It receives sometimes one body, and sometimes another. And lastly, two equal spaces contain as much the one as the other.

The Third said, That place, defin'd the immoveable surface of an ambient body, cannot agree to the air, because its surface is not immoveable. But if this immobility be meant of the whole



whole body of the air, this inconvenience will follow, that the external surface of the air is not proportionate to the quantity of the particular body which it encompasseth. The defining of place to be the space occupi'd by the body plac'd, explicates the place of bodies, but not of incorporeal things, as the Soul and Angels, which having no extension should have no space, and, consequently, be in no place. Wherefore I conceive that place being an external affection of figure and quantity, must not be taken in the concave superficies of the body which touches, it but in the convex of that which is contain'd. And so this superficies will be immoveable, since the quantity of the body remains the same) and always equal to the body contain'd without penetration, because it hath no profundity. Likewise, every body will be likewise in its own place. And as for things incorruptible and incorporeal, the Angels and the Heavens, their place will be always the extremity of their substance.

The Fourth said, That if there were any place in nature which receives bodies, it must either be a body it self, or a *vacuum*. A body it cannot be, for then two absurdities will follow, namely, penetration of dimensions (one body being within another) and a progress to infinity: for place being a body, it must be in another place, this in a third, this third in a fourth, and so to infinity. Nor can it be a *vacuum* which receives bodies. For either this *vacuum* remains after the admission of a body, and so the same place will be full and empty both together; or this *vacuum* recedes to make place for supervening bodies; which cannot be; for then it will be capable of local motion, which is an affection and property of body. Or else, lastly, this *vacuum* perishes and is annihilated; which is impossible too; for then it should be subject to generation and corruption, which are found only in bodies. Wherefore if ever the Scepticks had reason to suspend their judgement, 'tis in the nature of place, which they justly doubted whether it were something or nothing.

The Fifth said, That to doubt of place is to doubt of the clearest thing in the world, nothing being so certain as the existence of things, which cannot be but in some place. And we see a thing no sooner exists in nature but it hath its place and its station, which alone made the distinction of the parts of the world from their ancient Chaos, in which things were confus'd and without order, which is not found saving when every entity occupies the place due to its nature, which is preserv'd therein. Amongst simple bodies, Heaven hath the highest place, Fire and Air the next, Water and Earth the lowest: amongst mixts, Minerals and Metals are form'd in the Entrails of the Earth; Plants and Animals are preserv'd upon the earth and in the air; and the centre of every thing is nothing else but its place. Wherefore as God contains in himself all the perfections of his creatures, so he is in all places by his presence, his essence, and his power.

Upon



Upon the second Point it was said, That the Ancient Sages were always curious to hide the mysteries of their learning under some obscure things; the Poets under the shell of Fables, (whom *Plato* and *Æsop* imitated;) the Pythagoreans under their Riddles; *Solomon* under Parables, the Chaldeans in the sacred Letters of their *Cabala*. But especially the Egyptians have observ'd this mystery. For having learn'd from the Jews and the Chaldeans the principal notions of the Sciences and the Deity, (the Principles whereof were taken from those famous Columns which preserv'd the Characters thereof after the Deluge) they transmitted the same to posterity by the figures and images of things engraven upon Pyramids and Obelisks, whereof we still see some fragments in their Hieroglyphicks, which signifies sacred and mysterious figures or sculpture, not so much for the things employ'd to that purpose, which oftentimes were common and natural, as for the mystical and hidden sense which they attributed to the same. The use of these figures was the more profitable, in that having some similitude and correspondence to the quality of the thing signifi'd, they not only denoted the same, but also its nature and property. So, painting an Eye upon a Scepter, which signifi'd God, they intimated also his properties, by the Scepter his Omnipotence, and by the Eye his Providence. Another advantage of these Hieroglyphicks, is, that they were equally understood by all Nations of several Languages, as at this day the Chineses and Japoneses make use of some Letters like Hieroglyphicks, which signifie rather things than words. Which would be a good way to reduce all Tongues into one, and so to facilitate all Sciences, were not this Hieroglyphical writing too diffuse. For there must be as many Characters as there are things in the World, which being almost infinite, and every day new, would render this Art endless; which hath made the use of it laid aside, as it would also be among the Chineses, were not honour which supports and feeds all other Arts annex'd to this knowledge of Characters, which advances those alone who are skill'd in their Letters to Magistracies and the chief charges of that great State.

The Second said, That the signs for representing things are either Natural or Artificial. Amongst the natural, employ'd by men to express their conceptions, are the pictures and images of things; as to represent a Man or a Tree, they paint a man and a Tree; by which way *Philomela* describ'd the wrong which had been done her. The Ægyptians had the same design in their Hieroglyphicks; but finding that it would never have an end, they in this imitated the Hebrews, who make the same Root serve to produce a great number of words, and employ'd one figure to signifie first one thing, namely, that whose image it is, and afterwards many others wherewith it hath some affinity.

II.

Of Hieroglyphicks.



nity. So the figure of a Serpent signifies a Serpent, and the Prudence which is attributed to that animal; and because they observ'd, that the last day of the year joynd to the first, and made a continual circle, they represented the year by a Serpent with his tail in his mouth. Upon the same ground Emblems were invented. So *Alciate*, to represent Fortitude and Wisdom, gives the pourtraicts of *Ajax* and *Ulysses*; to signifie a good Merchant, who trusts only to what he holds, he paints a hand with an eye in the middle of it; the Fox signifies cunning; the Pismire Providence; the Bee, Policie; an earthen pot joyn'd to an iron pot, dangerous Alliance. In brief, so many fables and phancies are so many writings after this manner; from which, to speak truth, if you abstract the reverence which is due to Antiquity, I see nothing that comes neer the marvel of our Letters, which, in respect of other inventions, I cannot but compare to the Philosophers Stone so much talk'd of, which whoso possessees may by its projection make as much gold as he needs to travel over the world; and those other inventions to the money, or, if you please, the provisions, which a Traveller carries with him. For these are incommodious, and serve but to one or few uses; whereas writing, by combination of sixteen several characters, (the rest being found superfluous) is sufficient to represent what ever hath been, is, may or may not be.

The Third said, That no doubt 'twas necessity which put the Ægyptians first upon the invention of Hieroglyphicks, then which our Letters are much less significative, because they express not the nature of natural things, as their figures do, but only words. Yet the use of Hieroglyphicks was very pernicious to the vulgar, who seeing the Attributes of God represented under the shapes of Animals and Plants, took occasion to adore those corporeal things, and became the most superstitious of all Nations, going so far as to deifie garlick, onyons, rats and toads. Moreover, Mans life is too short for this Art; his wit too weak to invent figures futable to all the parts of speech diversifi'd by numbers, cases, persons, tenses, and other Grammatical differences of words; and his memory too slippery, to retain all those figures, because they represented not one single thing, but many different; and for that one and the same thing was diversly figur'd; as God was express'd by an Eye, a Circle, and an Unite; Prudence by a double head, a *Gorgon's* head, a Crane, a Dragon, a Serpent, a fish call'd *Scarus*, or the Gilt-head, a Mulberry-tree, a *Hiacynth*; Royalty, by the reins of a bridle, an Elephant and a Dog; Wisdom, by the breast, or the wand of *Pallas*; Concord, by a Crow, a *Caduceus*, or *Mercurius's* rod, a Peacock, a Bee, and a Lute; Fear by waves, a Dove, a Hart, a Hare, and a Wolf. All which figures signifi'd other things besides, yea, oftentimes contraries; as the *Als* is the Hieroglyphick of wisdom with the *Cabalists*, and with us of stupidity; and the same wisdom was denoted among the *Egyptians* by a sieve, which  
with



with us is the emblem of a loose-tongu'd person that can retain nothing. In fine, this Hieroglyphical invention is good for nothing but to make the ignorant admire what they must reverence without knowing it. For that which secures all professions from contempt, is, the use of terms not understood by the vulgar.

CONFERENCE XCVII.

I. *Of Weights, and the causes of Gravity.*

II. *Of Coat-Armour.*

**T**He World is Man's Palace, whereof God is the Architect, sustaining the same with the three fingers, of his Power, Goodness, and Wisdom. And the Scripture saith, *He hath hung the Earth in the midst of the Air, and ordained all things in number, weight, and Measure*, which are the three pillars of this stately Edifice. Number is the cause of Beauty; Measure, of Goodness; and Weight, of Order; which is not found but in the place towards which bodies are carry'd by their Gravity. A quality depending upon the four first, which by their rarefaction or condensation of things cause more or less ponderosity. For light signifies nothing but less heavy; it being certain, that as the Earth gravitates in the Water, and this in the Air, so would the Air in the sphere of Fire, Fire in the Heaven of the Moon, this in the mixt, and so forwards till you come to nothing, which hath no weight because it hath no corporeity.

I.  
*Of Weights,  
and the causes  
of Gravity.*

The Second said, That gravity and the descent of natural bodies to the centre, cannot proceed from the predominance of terrestrial parts in mixts; since Gold, the heaviest of metals, and Mercury, which is next it, have more humidity then siccity, that is to say, more Water then Earth, in comparison of other metallick bodies; Gold being the most ductile, and Mercury the most fluid. So also Salt, which is heavier then wood or stone, is nothing but water cogeal'd, and dissolving again in a moist place. Wherefore Gravity seems rather to proceed from these three things; namely, place, comparison, and figure. Place is so considerable herein, that bodies gravitate not in their proper places, but onely when they are remov'd from the same, and more or less proportionally to their distance. Comparison makes us judge a body light, because 'tis less heavy then an other. On the contrary, Figure makes heavy bodies light, causing Leaf-gold to swim, which in the same quantity reduc'd into a Globe would sink; and an expanded body weighs less in a balance, then when it is in a less volumn. Which is also observ'd of the thinner parts of the Air, which being of a more moveable figure are seen to play therein when the Sun shines clear.

C c c c

The



The Third said, That the cause why a broader figure swims, or is upheld in the Air more easily than if it were in a Globe or other closer figure, is not, for that figure makes a thing lighter, but from the resistance of the *medium*, which hath more hold in one than in the other. Nor do's gravity proceed from the inclination of a thing to its Centre; since the Centre is but a Point, wherein nothing can lodge. And if the Centre of the world were the Centre of heavy things, the stars which are the denser and solider parts of their orbs, and consequently, have more gravity, which necessarily follows the density of corporeal matter, especially the Moon which is demonstrated to be solid and massie, because it reflects the light of the Sun, should not remain suspended above the Air, which is lighter, but descend to this Centre of the Universe. For, to believe, with some, that the Moon is kept up like a stone in a sling by the rapid motion of the First Mover, is, to hold the Stars, the greatest and noblest part of the Universe, in a violent state, onely to give rest and a natural state to the least and meanest, which is the Earth. Wherefore the descent of bodies is not because of themselves they affect the Centre of the Earth, but for that they are upon a body lighter than themselves; order obliging every thing to take its own place, and till it be so, every body being necessitated to move it self, the heaviest downwards, and the less heavy upwards. Hence water gravitates not in its channel, although it be not in its Centre; because the upper part of the water is not heavier than the lower.

The Fourth said, That Gravity is a certain quality which carries all bodies towards a common point, continuing the union of the parts of the world, hindring Vacuity by the concentration of all bodies which press one another, the heavy having more matter in less quantity. For when we see Air mount above Water, and Fire above Air, they yield and give place to heavier bodies; as Oyle being in the bottom of Water ascends to the top, not by its lightness, but by the weight of the water which thrusts it up. So Lead, and all other metals, except Gold, swim in Mercury, to which they yield in gravity. For in equal quantities Gold weighs 19, Mercury 13, Lead 11 and  $\frac{1}{2}$ , Silver 10 and  $\frac{1}{2}$ , Copper 9, Iron 8, and Tin 7 and  $\frac{1}{2}$ . As for the cause of this gravity (which, some say, is in heavy bodies, others in their Centre, to which they attribute a magnetical virtue) I conceive, it consists in a reciprocal attraction of the same bodies, which draw and are drawn, and others are drawn to the inferiour body which attracts with all its parts; so that bodies are carry'd towards the Earth, and the Earth attracts them reciprocally, as the Load-stone attracts Iron, and is attracted by it. For 'tis evident that the Load-stone draws Iron; and to prove that 'tis drawn by Iron; lay a Load-stone in one scale, and in the other an equal weight to it. If you apply Iron to the bottom of the scale where the Load-stone is, this scale will raise up the other, the Iron attracting



tracting the Load-stone to it self. On the contrary, if you approach with the Iron over the Load-stone, the scale wherein it is will ascend towards the Iron which attracts it. For whereas 'tis objected, that if the Earth attracted things with all its parts; then it would follow that things let down in some hollow of the Earth, being attracted by the parts above, and those below, would not descend by reason of contrary attractions; I answer, that those bodies being out of their Centres, the greatest and strongest part of the Earth, which is towards the Centre, would attract them to it; the stronger prevailing over the weaker.

Upon the Second Point 'twas said, That all Nations have been curious in inquiring into their own Antiquities, and particulars, to preserve the tokens of their Genealogy; some by Histories, others by the Images of their Ancestors, as the *Romans*; and others by conjoyning of Hieroglyphicks and Ensignes, which are our Arms, which have had the same fate as other things of the world, and from very small and plain beginnings, by increasing of Alliances, have at length compos'd those variegated Scutcheons, so variously quarter'd and counter-quarter'd, that it hath been needful to make an Art, call'd by the Latines *Heraldica*, and to invent new words, with particular Officers, call'd Kings, and Heralds of Arms, to regulate and display them: And so many races and marriages are crowded together in the narrow extent of these Scutcheons, that great rolls and long Histories can scarce explicate them at length. The Scutcheon which we first blazon hath six *Fields*, namely, *two metals*, and *four colours*. The metals are, *Or* and *Argent*; the colours, *Azure*, (which is blew) *Gules*, (which is red) *Verd*, (which is green) and *Sable*, (which is black) some add a fifth, *Purple*, being mixt of *Azure* and *Gules*, but 'tis little or not at all us'd in *France*. The English introduce two others, *Tennê* which they call Orange, and *Sanguine*, which also are unusuall in *France*. Besides these colours, there are two *Furres* or sorts of Fells, which adorn the Scutcheon, *Ermine*, of *Sable* upon *Argent*; and *Vair*, or *Verry*, of *Azure* upon *Argent*; and when these Colours are alter'd, then the Scutcheon must be blazon'd *Verry* of such colours. Some Scutcheons have neither metals nor colours, and are call'd *White-shields*, (like those of new Knights before they have done any memorable atchievement; of which *Virgil* speaks—*Plamâq; inglorius albâ*) wherewith the Arms of our Maidens dying unmarried are quarter'd. Others have onely a small Scutcheon in the middle, and this Scutcheon is said to be in the *fesse point*. The principal parts of these Scutcheons are nine, answering to the parts of a man's face, which may be call'd every one's natural Scutcheon, whereinto are collected in several quarters all the titles of the nobility, and qualities, of the Soul. These parts are term'd, 1. The *Dexter Chief*, which answers to the right

II.  
Of Coats  
Armour.



Temple. 2. The *Middle Chief*, to the middle of the forehead. And 3. the *Sinister Chief*, to the left Temple. 4. The *Honor point*, to the root of the Nose. 5. The *Fesse point*, to the place of the Nose. 6. The *Nombril point*, to the Mouth. 7. The *Dexter Base*, to the right Muchato. 8. The *Sinister Base*, to the left. And 9. The precise *middle Base*, to the Chin. This Scutcheon is divided sometimes into sundry sorts of colours, or metals. If it be divided *in pale*, or perpendicularly, 'tis call'd *party per pale*; if in *fesse*, or athwart, 'tis said *party per fesse*; if slopingly, 'tis said *party per bende*. Lastly, 'tis quarter'd either by *crosses* or *gyrons*, or by a *Saltire*, which is a *S. Andrews Cross*; or else *counterquarter'd*, when one of its quarters is again quarter'd. Next are to be considered the *Ordinaries*, which are, 1. The *Chief*, which is the highest part of the Scutcheon. 2. The *Pale*, which divides it from the *Chief* to the *Base* perpendicularly. 3. The *Fesse*, which cuts it athwart the *Pale*. 4. The *Bende*, which cuts from the right Angle to the *Base*, and is a *Cotize* if it be a third part less then the *Bende*, and a *Battoon* if it be two thirds less then a *Cotize*. 5. The *Cheveron*. 6. The *Crosse*. 7. The *Saltire*. 8. The *Gyrons*, which form eight Triangles terminating in the Centre. There are other less principal parts, as the *Flanks* which divide it by the sides; the *Emancheures* with one or more points; the *Pyle*, which is a great *Isoceles Triangle* revers'd; the *Perle*, which is a kind of Y, taking up sometimes the whole Shield; the *Gussets*, *Lozanges*, *Frets*, and such other things as are better represented by figures then by words. These Armories are sometimes indented, invecked, and embattail'd at their sides; and sometimes they are either charg'd or bruis'd with sundry figures; the former, when there is but one in the middle; charg'd, when they are *semé* all over. A *Border* is any thing which surrounds the Scutcheon. Some Shields are cover'd with divers things, diaper'd in form of broidery, leaves, and morisques, and fretted in fashion of *Lozanges* and other things. The *Changes* are almost infinite, there being amongst others above thirty fashions of *Crosses*; the *Patee*, which is that of *Maltha*; the *Potence*, that of *Jerusalem*; the *fleury*, or *flory*; the *bottony*, *pommiettie*, &c. The other more common pieces are *Mascles*, a sort of *Lozange* voided, whereof the middle is of the colour of the field; *Rustres*, which are *Lozanges* pierced round; *Billets* or *Parallelograms*, *Fusils*, *Bezants*, which are figures of ancient Money; *Tortexes*, which are like *Bezants*, but differ from them, inasmuch as *Tortexes* are always of a colour, and *Bezants* always of *Or* or *Argent*. As for others, every thing in Nature fills the Shield, and hath its different blazons, if the colour of one of their parts be different from the whole. Amongst Fishes, the Whale with his tail and teeth different is said to be *fierte*; the Dolphin is said to be *hauriant*. Amongst Trees the Oak, for example, whose parts have different colours, is blazon'd *fuste*, or branchless for the wood; *accollé*,



*accollé*; or embrated; for the Ivy, *foliated* and *fructed*. The middle of Flowers is call'd *bottonie*. Amongst Birds the Eagle and Gryphon are almost alone said to be *arm'd*, that is to say, beak'd and ungulated; others are said to be *display'd*. The Cock is said to be *crested* and *jelloped*. Lyons, amongst Animals, are alone *rampant*; Horses in that posture are said to be *fray'd*; Bulls, *furious* or *mad*. The Lyon shews but one eye and one ear; the Leopard two, and is always *passant*; if he be *rampant* he is called *Leopard Lyonné*; if a Lyon be *passant* he is called *Lyon Leopardé*. There are Lyons *Naissant*, which shew only the head and the two fore-paws; *Issuant*, which shew only the hinder part; *Brochant*, or spreading over all the field; *Couped*, when one body is of two colours; *armed*, are those whose claws are of another colour; and *langued*, when the tongue is so. Blazon begins always from the dexter side of the *Chief*; in those that are quarter'd saltirewise, by the chief. If the first and last quarter be alike, they are blazon'd together, beginning always with the field. There are little Scutcheons upon the principle armories; those which are upon the fesse point are said to be *over all*; in the chief and the base, they are said to be *entez* or grafted; and if there be any upon animals, as Eagles or Lyons, they are said to be charged; and all Inescutcheons are always blazon'd last.

The second said, That as Nobility is the more esteem'd the more obscure its original is; so the first Inventors of Armes, which are the Badges of it, seem to have affected obscurity in their terms, to render the same more recommendable to the vulgar by being less understood. Armes are compos'd of Images pourtray'd upon a ground call'd the Field, into which mens ambition hath introduc'd every thing in Nature; the Heaven, the Stars, the Air with its Birds, the Sea and its Fishes, the Earth, and whatever rarity it hath upon its surface and in its bowels; all the parts of man, and all the instruments of Arts, especially those of War, to which Armories owe their birth: Whence the Shield or Buckler hath been chosen to receive the same, and to serve as a badge of Nobility, for the distinction of Families. And as all Nations have preferr'd Valour before the other Virtues, because 'tis most useful for the preservation of States; so they have destinated to it Palms, Crowns, Triumphs, and such other badges of Honour; amongst which all Nations have apprehended something of Divinity in their Shields. The *Getes* made their solemnest Oaths upon them; the ancient Germans ador'd every one his Shield and the Moon. The Poets relate, that the fate of *Troy* lay in a Buckler which was kept in the Temple of their Goddesses. A Buckler sent from Heaven kept the fortune of the Romans, like to which one of their Kings caus'd 400 to be made. Two Grecian Captains disputed the possession of *Achilles's* Buckler. That of *Æneas* had graven upon it all the destiny of *Rome*. In brief,  
our



our ancient Kings were carri'd upon a great Target or Shield to the solemnity of their Coronation. The highest of our Coins bears the name and figure of an *Eſcu* or Shield; and true gentry amongst us is that of Esquiers, a title drawn from *Eſcu* or a Shield. Which hinders not but that learning, and management of affairs, being ways of ennobling men, though less frequent and more difficult, deserve also to bear Arms; as we read that *Charles IV.* granted to *Bartolus*, the famous Civilian, a Lyon *gules*, with two tails, in a field *Or*.

The Third said, That some Armories are commonly conceiv'd to have been sent from heaven, as the *Croſs* of *Constantinople*, and the *Flowers de lys* of *France*. Others are taken from memorable qualities and actions of Ancestors, as those of *Austria*, a Prince whereof returning out of battel cover'd all over with blood except his Belt, gave occasion to his descendants to bear a *Fesse Argent* on a *Shield gules*. Such is the *Croſs* of *Savoy*, which the Christian Princes granted to one of the *Amadei*, for having driven away the enemies from behind the Island of *Rhodes*; and the three *Wings* of *Lorraine*, because a Duke pierc'd three Birds flying with one arrow. Others have some correspondence or allusion to the name of the bearer; as those of *Castile*, *Leon*, *Galicia*, and *Granada*, which have a Castle, a Lyon, a Chalice, and a Pomegranate. Others have distinctions for younger brothers, as a *Battoon* in the middle, or a *Label* with 2, 3, or more pendants in the *Chief*. Bastards commonly bear a *Battoon in contrebende*, that is, coming from the sinister point of the *Chief* to the dexter of the *Base*. Likewise other pieces distinguish younger brothers, as *Mullets*, *Cressants*, &c. plac'd in the middle of the *Chief*, or else at the first *Quarter*. But 'tis remarkable in blazoning of Arms, that Metal must always be put upon Colour, or Colour upon Metal; only *Godfry* of *Bouillon* made his Shield of argent charg'd with a *Croſs potencé Or*, and four other *Corllets* of the same Metal.

The Fourth said, That being the injury of times consumes all things, the Arms or Devises of Families hath been found the best monuments to preserve their memory through many ages. This gave occasion to our Gaules (for they brought Coat-armour into greatest use, it being yet unknown to divers Nations) to engrave upon their Gates the same badges which distinguish'd them whilst they fought arm'd *cap-a-pe*, and could not otherwise be known: and if it hapned that two Cavaliers bare the same Shield, the one would either have the life of the other, or make him alter his devise. Such an expedient as once agreed two Gentlemen, who were ready to fight because both of them bore a Bulls head, not always occurring; for they were contented with this decision, that one of them should Blazon his Coat with the head of a Bull, and the other with the head of an Ox or Cow, at his choice. Because every one was suffer'd, as they are at this day abusively, to chuse  
Arms



Arms to himself ; which is the cause that the handsomest Arms are the worst, as being the newest ; because they are invented according to phancy. Whereas anciently, to give Arms was one of the chief rights of Sovereignty, and joyn'd with the power of conferring Knighthood ; and the advices of the noblest and ancientest Families were taken concerning the blazoning of them, as being interess'd in this novelty. And as for Sovereigns, they chose the most ancient Arms they could. Those of *France* are found in the brain of a Cock, the Imperial Eagle in the root of Fern cut athwart. So the figure of *Chevrons*, *Torteauxes*, *Lozenges*, *Macles*, *Fusils*, and most other things which enter into the Field of Scutcheons, occur at every turn, and in most Trees, Stones, Fishes, and other animals : their design being that their Families should appear not less ancient than nature. It remains to give some examples of particular Blazons.

The King of *France* bears two Scutcheons, The first is Azure, three *Flowers de lys* Or, two in chief and one in point ; which is *France*. The second is Gules, two Chains Or, plac'd in orle, pale, fesse, bende and bar, which is *Navarre*. The Supporters are two Angels, one on the right side cloth'd with a Coat of Arms azure, *semé* with *Flowers de lys* Or, ; the other on the left, clad with the Arms of *Navarre*. The Crest is a double *Flowers de lys*.

And to speak something of strangers, without observing any order, which would be too troublesome ; *Presbyter John* bears azure, a Crucifix argent. The *Turk* bears Vert, a Crescent argent. *England* bears gules, three Leopards Or, armed and langued azure. *Hungary* bears barry, argent and gules, of eight pieces. *Arragon*, Or, four pales gules. *Rhodes*, *Malta* and *Savoy*, bear gules, a Cross argent. *Flanders*, Or, a Lyon fables, langued gules. *Artois semé* of *France*, a label of three pendants, chastellated with *Chasteaux* Or. *Leon*, argent, a Lyon gules. *Saxony*, barry, Or and sable, of eight pieces, a Demy Crown or Crancelin Vert plac'd bend-wise. *Bohemia*, argent, a Lyon gules, his tail nowed and pass'd in saltyre. *Lombardy*, gules a Lyon Or, armed and langued sable. *Florence*, argent, a *Flower de lys* expanded gules. The great Cham of *Tartary* bears Or, an Owl fables. *Parma*, Or, six *Flowers de lys* azure. *Sweden*, azure, three Crowns Or, two in chief, and one in base. *Denmark*, Or, *semé* of Hearts gules, three Lyons Leopardez azure, langued, and armed Or. *Poland*, gules, an Eagle argent, beaked, membred and crowned Or. *Holland*, Or a Lyon gules. *Bavaria*, *fuselé* argent and azure, of twenty one pieces placed bendwise. *Ireland*, gules, a Harp Or.



## CONFERENCE XCVIII.

I. *Of the causes of Contagion.* II. *Of the ways of occult Writing.*

I.  
*Of the causes  
of Contagion.*

**D**iseases, being accidents, must be divided, as other accidents, by their first subjects, which are the solid parts, the humours, and the spirits; and by their several causes; some of which are manifest, others unknown; the malignity of the causes which produce them, and the manner whereby they act, being inexplicable. Which diversity of causes depends upon those of mixtions, which are of two sorts; one, of the qualities of the elements, which makes the difference of temperaments; the other of the elementary forms, which being contrary only upon the account of their qualities, when these put off their contrariety by alteration, the forms easily become united; and as amongst qualities, so amongst forms, one becomes predominant, the actions whereof are said to proceed from an occult property, because the form which produces them is unknown to us. So Arsenick and Hemlock, besides the power which the first hath to heat, and the second to refrigerate, have a particular virtue of assaulting the heart, and killing speedily, by a property hitherto unknown. Such also are contagious and venomous diseases, some whereof are caus'd by the inspir'd air, as the Pestilence; because air being absolutely necessary to the support of our natural heat, if when it is infected with malignant and mortal vapours, it be attracted by the mouth, or the pores of the skin, it corrupts the mass of the spirits, as a crum of bread or other extraneous bodies makes milk or wine become sowre. Others infect by bodily contact, as the Itch, the Pox, the Measles, and the Leprosie. A third sort proceed from a venomous matter, either communicated outwardly, as by poyson and the biting of venomous beasts, or generated in the body, as it may happen to the blood, black choler, and the other humours being extravasated.

The Second said, That diseases proceed either from the corruption and vitiosity of particular bodies, some of which are dispos'd to the Pleurisie, others to the Flux, others to the Colick; call'd therefore sporadical, or dispers'd and promiscuous diseases; or else from some common vitiosity, as of the air, aliments, waters, winds, or other such common cause, whereby many come to be seiz'd upon by the same disease at the same time: so, after Famines, bad nourishment gives a great disposition to the Pestilence. These maladies are fix'd to a certain Country, seldom extending beyond it; as the Leprosie to the *Jews*, the Kings Evil to the *Spaniards*, Burstenness to *Narbon*,  
the



the Colick to *Poitou*, the Phthisick to the *Portugals*, the Pox to the Indians call'd by them *Apua*, and brought by the Spaniards into *Europe*; and such other diseases familiar to some particular Country, and call'd *Endemial*. Or else they are Epidemical, and not ty'd to a certain region, but produc'd by other external causes, as pestilential and contagious diseases; which (again) are either extraordinary, as the Sweating-sickness of *England*, the *Coqueluche*, which was a sort of distillation; or ordinary, which manifest themselves by purple spots, carbuncles, and buboes. But as the causes of the Small-pox and Measles are chiefly born within us, being produc'd of the maternal blood attracted in the womb, and cast forth by nature when become more strong; so though the seeds of contagious diseases may come from without, yet they are commonly within our selves.

The Third said, That Contagion is the communication of a disease from one body to another; the most violent so communicable is the Pestilence, which is defin'd a most acute, contagious, venomous and mortal Fever; accompani'd with purple spots, Buboes and Carbuncles. 'Tis properly a species of a Fever, being a venomous and contra-natural heat kindled in the heart, manifesting it self by a high, frequent, and unequal pulse, except when nature yields at first to the violence and malignity of the disease, and then the pulse is slow, small and languishing; but always unequal and irregular. Oftentimes it kills the first or second day; scarce passes to the seventh, if it be simple and legitimate; but when 'tis accompani'd with putrefaction, it reaches sometimes to the fourteenth. Its malignity appears in its not yielding to ordinary remedies which operate by their first qualities, but only to medicaments which act by occult properties; an argument that the cause of these diseases is so too. Now four things are here to be consider'd, 1. That which is communicated. 2. The body which communicates the same. 3. That to which it is communicated. 4. The *medium* through which the same is done. A thing communicated against nature, is either the disease, or the cause of the disease, or the symptom. Here 'tis the cause of the disease, which is either corporeal or incorporeal. The incorporeal, in my opinion, are the malignant influences of the Stars, as of *Mars* and *Saturn*, and during Comets and Eclipses. For since their benigne influences preserve motion and life in all things of the world; by the reason of contraries, the malignity of the same aspects may be the cause of the diseases and irregularities which we behold in it. The corporeal cause must be moveable, an humour, a vapour, or a spirit; which malignant evaporations kill oftentimes without any sign of putrefaction; or if there be any, it proceeds not from the corruption of the humours, but from the oppression and suffocation of the natural heat by those malignant vapours; and then the humours being destitute of the natural heat, and of that of the spirits which

D d d

preserv'd



preserv'd them, turn into poyson. There must be some proportion between the body which communicates this vapour and that which receives it ; but the same is unknown to us ; and this proportion is the cause that some Contagions seize only upon some animals, as Horses, Dogs, and Cattle ; others upon Men alone, Children, Women, old Men, Women with Child and their burthens ; others seize only upon certain parts, as the Itch is communicated only to the skin, the Phthisick to the Lungs, the Ophthalmia to the eyes, and not to the other parts. The *medium* of this communication is the air, which being rare and spongy is very susceptible of such qualities, which it easily transmits by its mobility. And these qualities happen to it, either extrinsically, as from fætid and venomous vapours and fumes exhal'd from carrion, marshes, impurities, and openings of the ground by Earth-quakes, which are frequently follow'd by the Pestilence ; or else they arise in the Air it self, in which vapours may acquire a pestilential malignity, of which a hot and moist intemperature is very susceptible.

The Fourth said, That the Pestilence is found indifferently in all seasons, climates, sexes, ages, and persons ; which argues that its proximate cause is not the corruption of the humors, and intemperature of the first qualities. Otherwise the Pestilence should be as other diseases, whereof some are hot, others cold, and be cur'd likewise by contrary qualities. Besides, the Spirits being igneous cannot be corrupted, and the corruption observ'd sometimes in the humors is not essential to the Pestilence, but onely accidental, and however but an antecedent cause. For if putrefaction were the conjunct cause, then putrid Fevers and the Gangrene, which is a total putrefaction, should be contagious. Wherefore it appears that the cause of this diseases are as occult as its effects are sensible ; and that 'tis chiefly in this kind of malady that 'tis to be inquir'd, as *Hippocrates* speaks, whether there be not something divine. Which we are not to understand, as he doth, concerning what proceeds from the Air ; seeing God threatens, in *Ezekiel*, to cause the third part of his people to dye of the Pestilence ; as in one night he caus'd all the first born of Egypt to perish ; and in three dayes, under *David*, seventy thousand Israelites.

The Fifth said, That to attribute the cause of the Pestilence to putrefaction, without assigning the degree of it, is to say nothing more then to recur to the properties of substance, and less then to seek it in the divine Divine Justice ; these terms manifesting our ignorance, rather then the thing inquir'd. Moreover, the signes of this malady are all equivocal, and common to other diseases, yea, oftentimes contrary one to another ; in some a pulse is violent, bleeding at the nose, thirst, the tongue dry and black, delirations, purple spots, and buboes ; in others, a small pulse, vomiting, tongue yellow, livid, and sleepiness. And some sick are cur'd by remedies which kill others, as by Vomits,



Vomits, Purges, and bleeding. Even of Sudorificks, the most futable to this disease, some are temperate, and others hor. So that 'tis no wonder if a disease so irregular, being known to us onely by the relation of people, oftentimes ignorant, the skilful being unwilling to venture themselves, makes such havock, since the small pox and other diseases would make no less, though possibly in longer time, if they were as little understood.

Upon the Second Point 'twas said, That the Ancients deservedly reckon'd secrecie amongst their fabulous Deities, under the name of *Harpocrates* the God of silence, since 'tis not onely, as the Poet saith, the God of the master of Gods, that is, Love, but the Governour of the mysteries of Religion, the Guardian of Civil Society; and, as the Philosopher speaks, the God of the publick and private Fortune, which is maintain'd by secrecie, the Soul of the state and business; whence cyphers, and occult ways of writing took their birth. The *Hebrews* were the first that practis'd cyphers, of which they had six sorts; *L'Etbah*, by transposition of Letters; *Themurah*, by their commutation; *Ziruph*, by combination and changing of their power; *Ghilgal*, by changing of their numeral quotitie; *Notariaszon*, putting one Letter or one Syllable for a word; and *Gemetry*, which is an equivalence of measures and proportions. But these sorts of cyphers have been found too troublesome and equivocal, and besides, more recreative then solid. The truncheon encompassed with a thong, which was the Laconick Scytale, the cypher of the *Lacedæmonians*; that of *Julius Cæsar*, who put D for A, and E for B, and so of the other Letters, and the odd figures given by others to the twenty four Letters, are too gross to be well conceal'd. The Dactylogie of *Beda* is pretty, whereby we speak as nimbly with the fingers as with the tongue, taking the five fingers of one hand for Vowels, and the several positions of the other for Consonants. But it can be us'd onely in presence. They talk also of the same way by bells, trumpets, arquebuses, fires, torches, and other such means; but because they depend on the sight and the hearing, which act at a certain distance, they cannot be useful in all cases. The transmission of thoughts and spirits contriv'd by *Trithemius* and *Agrippa*, and that invention of quadrants, whereby some have phancy'd it possible to speak at any distance by help of a Load-stone, are as ridiculous as that of *Pythagoras*, to write with blood on a Looking-glass, and reflect the same upon the face of the Moon. For besides, that the Moon is not alwayes in a fit position, could a fit glass be found; the writing would not be secret, because that Luminary is expos'd to the Eyes of all the world. No cypher is comparable to that of writing when 'tis well contriv'd; to which purpose they make use of keys to cypher upon the Alphabets, which are infinite, depending upon every one's phancy; being sometimes either one Letter, or one word, or altering in the same discourse

II.

Of the wayes  
of occult  
writing.



and at every word. Sometimes they divide the discourse, and one half serves for a key to the other; sometimes they put key upon key, and cypher the key it self with other keys. They put Naughts at the end of words to distinguish them, or every where amongst the Letters to deceive the Decypherer, and under these they cypher another hidden sense by other keys; yea, they insert other Naughts amongst them for a third sense, or to cause more difficulty. Some make use of numbers, abridge or multiply the Alphabet, and prepare tables wherein they put three Letters for one. In fine, humane wit hath left nothing unattempted for the concealment of thoughts under the veil of cyphers; of which, the most perfect are those which seem not to be such, hiding under a known sense, and an intelligible discourse, another sense unknown to all others besides the correspondents; such is that of *Trithemius*, by those three hundred seventy five Alphabets of significative words, each expressing one single Letter.

The Second said, All the several wayes of occult writing depend either upon the matter or the form. To the first belong the sending of Swallows, Pigeons, or other birds, as also the inventions of writing with Salt Armoniack, Alumn, Camphire, and Onyon, which appear onely at the fire. The formal depends upon cyphers, which are fram'd either by the fiction of Characters, or by their commutation, using three or four Letters to write every thing, with some dashes or aspirations, which yet may be easily decypher'd, by reason of the frequent repetition of the Vowels; and those which are thought impossible to be discover'd, are commonly subject to great ambiguities, and so are dangerous.

The Third said, Of the three Authors which have writ concerning this matter, *Baptista Porta* teaches rather to decypher then to cypher, and all his inventions are little secrets, as to write with *Alumn*. Those of *Trithemius* are very gross, of which nevertheless he hath compos'd three Books, the two first intelligible enough, but the third so obscure, and promising so many miracles, that *Bellarmino*, and many others thought it full of Sorceries, which yet are nothing but the same secrets mention'd in the two foregoing Books, but hid under more suspicious words; amongst which that of the *Spirit*, which is very frequent, signifies the Alphabet or the Key of the Secret, and to look under a stone and take thence a charme which the Spirit left there, or to invoke the same Spirit, signifies that you must go and take from under a stone agreed upon the cypher'd letter, and decipher it by the same alphabet upon which it was cypher'd. *Vigenarius* spends half his Book in speaking of the *Cabala* of the Jews, and the Caldeans, and the other half in many Alphabets of all sorts, with Key and without: he hath indeed abundance of Cyphers which seem undecypherable, which he makes to depend on three differences. 1. On the form of Characters,



Characters, which comprehends several figures, lines, and colours. 2. On their order and situation; but changing the Alphabet almost infinite ways. 3. On their value and power, giving such signification to one letter or character as you please: All which are easily known for cyphers. The second condition of a cypher, and which follows that of secrecie, being not to appear such; the least suspicion causing the stopping of the paper, and so rendring it unprofitable to the writer; which has given occasion to some to cover characters drawn in oyl with something that might be wash'd off, besides other such inventions to take away suspicion; such as that of having two Books of the same impresson, and under pretext of sending Tables of Astrology, or Merchants Bills, to design by cyphers the letter of the Book which you mean to express, the first cypher signifying the fourth page, the second the fourth line, and the third the fourth letter of that line, which you would denote.

CONFERENCE XCIX.

I. *Of Ignis fatui.* II. *Of Eunuchs.*

**T**Is a question whether 'twould be more advantageous to mans contentment to be ignorant of nothing, since then he would admire nothing, which is one of his greatest pleasures. Hence a Peasant beholding a flake of fire following him, or going before him in the night time, will be otherwise ravish'd with it then a Philosopher, who knows or thinks he knows the cause of it; there being little difference herein, as to our satisfaction. They conceive it to be an unctuous exhalation, apt to be inflam'd, like the fatty steam of a Candle newly put out, which instantly conveighs down the neighbouring light to seek its aliment: But the same example shews us, that fire very suddenly devours its aliment when it is subtile and thin: So that if a fire of straw, which is much more material then an exhalation, vanishes so quickly that we express the most transient momentary things thereby, how can a far thinner exhalation keep this foolish fire so long? which, besides, burns not, as appears by its sticking innoxiously upon the hair of men and manes of horses; and yet *Aqua-vitæ* never so well rectified will singe the hair, as was sometimes verified to the great prejudice of one of our Kings; which would make me think, that as all fire is not luminous (as a hot dunghil burns your finger, and fire excited by motion burns much more without blazing) so there are some lights which are not igneous, as in Heaven the Stars, and in Earth some rotten woods, certain fishes, worms, eyes, flesh of animals, and other more such subjects, which cannot be more susceptible

I.  
*Of Ignis fatui.*



susceptible of those lights which burn not, then the Air which is the prime diaphanous body, and consequently most capable of receiving them; although possibly we cannot truly know what temper the Air must acquire to become luminous, no more than what is fit for it in other subjects, For to attribute the cause thereof to purity or simplicity, signifies little; for earth and ashes are more simple than the flesh, or other part, dead or living, of an Animal; and yet this shines, and those not.

The Second said, That these fires may be referr'd to four sorts. The first resemble falling Stars or lighted Torches, which *Plutarch* saith were seen to fall upon *Pompey's* Camp the eve before the Battle of *Pharsalia*. The second is that kind of flame which has appear'd upon the heads of some, as of *Ascanius* in *Virgil*, and of *Servius Hostilius*; which was an omen to them of Royalty. The third are those which appear at Sea about the Masts and Shrouds of the Ships, named by the Ancient, *Castor* and *Pollux* when they are two, and when but one, *Helena*; and by the Moderns, the fire of *S. Elme*. The last are those which are seen in the Country in the night time, and are thought to drive or draw Travellers into precipices. As for the first, 'tis certain that the same exhalation which makes Comets in the highest Region of the Air, and Thunders in the middlemost, is also the matter of these falling Stars, and being rais'd in small quantity from the earth is condens'd by the cold of the middle Region, where finding no cloud strong enough to uphold it, 'tis inflam'd by the antiperistasis of its contrary, or the swift motion of its fall, by reason of its great heat and siccity. And as they proceed from the same cause as dry winds do, so they presage winds and droughts, especially in that quarter from whence they fall. But as for the other sorts, I conceive they are only lights, and not fires: For the Air being transparent, and the first subject of Whiteness, as *Aristotle* saith, hath likewise in it self some radical light, which is sustein'd by that of the Stars which shine in the night. And this whiteness of the Air is prov'd by the appearance of it when tis enclos'd in moist bodies, as in froth, snow, and crystal; which whiteness is very symbolical to light, which it preserves and congregates, as is seen by the same snow in a very dark night: Yea, to speak plainly, whiteness is nothing else but light extinct, luminous bodies appearing white neer a greater light, and white luminous in darkness. So 'tis possible that the thinner parts of the Air being inclos'd in these unctuous vapours, they appear enlightned and shining, as well by reason of the condensation of its body as the inequality of its surfaces; like a diamond cut into several facets; or as the Stars appear luminous only by being the denser parts of their Orbs. And this kind of light has been seen upon the heads of children, whose moister brain exhal'd a vapour proper for it; such also as that is which forms the *Will-i-th-Wisp*, which may also proceed from the reflection of  
the



the Star-light from the Sea, or Rocks: For, That two of these fires bode good to Seamen, and one ill, is but one of the superstitions of Antiquity; unless you think that the greater number of fires argues greater purity of the Air, and consequently less fear of tempest.

The Third said, He accounted the common opinion more solid, which teacheth two material principles of all Meteors, Vapour and Exhalation; but one and the same efficient, the heat of the Sun, which lifts the thinner parts of the water in a vapour, and those of the earth in an exhalation; the former hot and moist, the latter hot and dry, borrowing their heat from an extraneous heat; but vapour hath humidity from the water, and exhalation siccidity from the earth; yet this siccidity must be joyn'd with some unctuousity to admit the heat, which acts not upon bodies destitute of all humidity, as the driest ashes are not alter'd by the hottest fire. The driest and least unctuous of these Exhalations are in the middle Region transform'd into winds and tempests, in the entrails of the earth they cause Earth-quakes; and if they be somewhat more unctuous they make subterranean fires; in the upper Region they form Comets, and in the lower our *Ignes fatui*, which are different, according to the divers coition of their matter, in length, breadth, or circularly; whence comes the difference of these Meteors call'd falling Stars, Flames, leaping Goats, flying Dragons, Beams, Lances, Javelins, and other like names, from the figure of their matter. Yet all these differences are chiefly taken from the magnitude, figure, colour, time, motion, and place of these fires. Magnitude, because some are large and spacious, others very small. Their figure comes from chance; their colour from the mixture, rarity, or density of the matter. Their time is chiefly the night, being then most visible. Their place, from the Heaven of the Moon to the centre of the Earth. Their motion according to the six differences of place, and the situation of their subject: Hence they pursue those that fly them, and on the contrary fly before those that pursue them; whereupon the ignorant vulgar takes them for evil spirits, because they drive and lead them into precipices and bogs, which is from their following the unctuous matters which they exhale from those places; whence also they commonly appear near places of execution, and Church-yards.

Upon the Second Point 'twas said, That the Canons make three sorts of Eunuchs; the natural, the factitious, and the voluntary; congruously to our Lords division in the Gospel, that some are born, others are made by men, and others make themselves Eunuchs for the Kingdom of Heaven; which is no more to be taken literally then the plucking out of the eyes, or the cutting off of the hands when they offend us; but mystically

II.  
Of Eunuchs.



cally, for those who voluntarily renounce the pleasures of the flesh. Their original is as ancient as the Law of Nations, whereby the Conquerors giving law to the conquer'd chang'd the punishment of killing them into mutilation of some members; and amongst the rest of these, to make them more faithful and affectionate by depriving them of the means of getting children, and more trusty in keeping of their goods and wives. Hence they have come to be so highly esteem'd, that not only the Emperors of *Constantinople*, the Kings of *Egypt*, *Persia* and *Chaldea*, have entrusted them with the management of all their affairs; but also, in the Roman Empire, an Eunuch Slave was valu'd at five times as much as another. Besides that their purity has qualifi'd them amongst the Heathen for Priests of their Deities; amongst which the Goddesses *Isis* and *Cybele* admitted no other, which possibly, by antiphrasis, were call'd *Galli*. Even in Christianity, the Eunuch of the Queen *Candace* was the first Gentile call'd to the light of the Gospel; the expressions whereof *Origen* understanding literally castrated himself, by an example so singular that St. *Jerome* chose rather to admire, then to blame the greatness of his courage.

The Second said; If it be true, that good consists in the perfection of all parts, and evil in their least defect, the deficiency of those necessary to the conservation of the species is the greatest of all, since it devests us of the noble quality and character of man, which an Eunuch is no longer, nor yet a Woman, but something less then both. And as the propagation of men is an effect of the divine benediction at the beginning of the World, so the barrenness and impotence of Eunuchs, contrary to that fruitfulness, is abhorr'd by all the world; and was taken by the Jews for a curse. Moreover, Nature which is the principle of motions and generations, seems to disown those who want the parts requisite to this action. The Laws forbid them the privilege of adoption, and most Offices and Dignities. God himself, in the old Law, prohibited them entrance into his Church; and in the New the Church forbids them the use of her Sacraments, namely, Orders and Marriage. Nor is it any wonder, since every thing in nature is fruitful, even accidents reproducing their species, which are so many generations. Wherefore finding no place among natural things, nor in the Categories, it follows that they are monsters. The Emperor *Adrian* extended the penalty of the Law *Cornelia* against those who make Eunuchs, or consent any way thereunto, *L. 4. S. ad. L. Corn.* And before him the Pretors had introduc'd divers actions touching this matter; as the action of Injuries, of the Edict of the *Ædiles*, and of Quadruple in the Law, *27. S. ad leg. Aquil.* And, lastly, the Emperor *Constantine* expressly interdicted Castration in all the Empire, under pain of life, and others contain'd in two Laws, *De Eunuchis*, in the Code.

The



The Third said, That whether you consider Eunuchs in reference to the body or the mind, they are happier than others. They are out of danger of being gouty and bald, two maladies, whereof the one extremely torments a man, and the other dishonours him; and it cures the most horrible of all maladies, the Leprosie. On the other side, it puts the same difference between the manners of men as it doth between untractable horses and others. Hence the Castrated are more pleasant company; and to contribute thereunto Nature has afforded them the grace of a delicate voice all their lives, which forsakes children as soon as they come to puberty: and being exempted from the diseases which the excess of Venery brings to others they are longer-liv'd, and more easily bear the excess of wine. They are deliver'd from the cruel servitude of lust, and all the other passions which attend it. And in recompence of those parts wherewith Asses and Mules are better provided than men, they are early furnish'd with wisdom and continence, which (as the example of *Susanna's* old Lovers shews) happens later to man than grey hairs. Moreover, Eunuchs have a fit temper for goodness of wit, which, according to some, occasion'd the Greek name Eunuch, and not their charge of guarding the bed, and observing the deportments of Wives: whole subtilty and infidelity may delude their Husbands, but could never deceive the vigilance of these *Argusses*; who in this alone shew what they can do, since they have the skill to govern that sex which is indisciplinable by all other.

## CONFERENCE C.

### I. Of the Green-Sickness. II. Of Hermaphrodites.

AS women have commonly more defects in mind, so their bodies are subject to more diseases than those of men; amongst which this is call'd Love-sickness, because it ordinarily happens to marriageable Virgins, and the Green-sickness (by *Hippocrates*, Chlorosis) from a colour between green and livid, which it imprints upon the countenance. Yet, besides this change of the natural colour, which is red, it hath divers other symptoms, whereof the chief are a perverse appetite, call'd *Malacia* or *Pica*, Nauseousness, Tension of the Hypochondres, faintings and palpitations of the heart, difficulty of breathing, sadness, fear, languishing, weakness, and heaviness of all the members, an œdematous humour, or bloatiness of the feet and the whole face: of which accidents those of the altera-

I.  
Of the  
Green-sick-  
ness.

E e e e

tion



tion of colour being the most perceptible, and the pathognomonical signes of this disease have with the vulgar given the denomination to it. This malady is not to be sleighted, as people imagine; being sometimes so violent, that the peccant humours being carri'd to the head render the Maidens distracted and mad; yea sometimes they dye suddenly of it, the heart and its vital faculty being stifled and oppress'd by it. For this symptome hurts not only the functions of one part or faculty, but invades the whole œconomy, causing an evil habit, which degenerates into a Dropsie; especially, that which the Physitians call *Leucophlegmatia* or *Anasarca*, when the flesh like a sponge imbibes and attracts all the aqueous and excrementitious humidities. The antecedent and prime cause of this malady is the suppression of the menstrual blood; the conjunct and proximate is the collection of crude and vicious humours in all the parts of the body which they discolour. Now when the blood which serves in women for the principle of generation becomes burdensom to nature, either by its quantity, or its quality (which happens commonly at the age of puberty) she expells it by the vessels of the womb; which if they be stop'd, that blood mingled for the most part with many other excrementitious humours which it carries along with it, as torrents do mud, returns the same into the trunk of the hollow Vein, from thence into the Liver, Spleen, Mesentery, and other Entrails, whose natural heat it impairs, and hinders their natural functions, as concoction and sanguification, and so is the cause of the generating of crude humours; which being carried into all the parts of the body, are nevertheless assimilated and so change their natural colour. Of which causes which beget those obstructions in the Vessels of the Matrix, the chief are, a phlegmatick and viscous blood commonly produc'd by bad food, as Lime, Chalk, Ashes, Coals, Vinegar, Corn, and Earth, which young Girles purposely eat to procure that complexion, out of a false perswasion that it makes them handsomer. Yet this malady may happen too from a natural conformation, the smalness and closeness of the aforesaid Vessels; whence the fat and phlegmatick (as the pale are) are more subject to it then the lean and brown.

The Second said, 'Tis an opinion so universally receiv'd that the Green-sickness comes from Love, that those who fight under his Standards affect this colour, as his liveries. But 'tis most appropriate to Maidens, as if nature meant to write in their faces what they so artificially conceal, and supply for their bashfulness by this dumb language. Whereunto their natural Constitution conduces much, being much colder then that of men; which is the cause that they be-  
get



get abundance of superfluous blood, which easily corrupts, either by the mixture of some humour, or for want of free motion (like standing waters, and inclos'd air) and infects the skin, the universal Emunctory of all the parts, but especially that of the face, by reason of its thinness and softness. And as obstructions are the cause, so opening things are the remedies of this malady; as the filings of Steel prepar'd, Sena, Aloes, Myrrhe, Safron, Cinamon, roots of Bryony and Birth-worth, Hysope, wild Mercury, the leaves and flowers of Marigold, Broom flowers, Capers, &c.

The Third said, That the vulgar opinion, that all Green-sickness is from Love, is a vulgar error. For though the Poet writes that every Lover is pale, yet hatred causes paleness too; and the consequence cannot be well made from a passion to a habit. Besides, little Girls of seven and eight years old are troubled with this disease, and you cannot think them capable of love; no more then that 'tis through want of natural purgation in others after the age of puberty; for women above fifty yeers old, when that purgation ceases, have something of this malady. Yea men too have some spices of it sometimes; and yet the structure of their parts, being wholly different from that of females, allows not the assigning of the same cause in both. Yea did the common conceit hold good that those who have small vessels, and (as such) capable of obstruction, are most subject to it; yet the contrary will follow to what is inferr'd to their prejudice. For they will be the less amorous, because the lesser vessels have the lesser blood, which is the material cause of Love, to which we see sanguine complexions are most inclin'd.

Upon the second Point 'twas said, That if Arguments taken from the name of the thing be of good augury, Hermaphrodites must have great advantage from theirs, as being compounded of the two most agreeable Deities of Antiquity, *Mercury* or *Hermes*, the Courtier of the Gods, and *Venus* or *Aphrodite*, the Goddess of Love; to signify the perfection of both sexes united in one subject. And though 'tis a fiction of the Poets that the Son begotten of the Adultery of *Mercury* and *Venus* was both male and female; (as well as that of the Nymph *Salmacis*, who embrac'd a young man who was bathing with her so closely that they became one body) yet we see in Nature some truth under the veil of these Fables. For the greatest part of insects and many perfect animals have the use of either sex. As the *Hyena*, by the report of *Appian*, one year do's the office of a male, and the next of a female; as the Serpent also doth, by the testimony of *Ælian*; and as *Aristotle* saith, the Fish nam'd *Trochus*; and 'tis commonly said that the Hare impregnates it self. *Pliny* mentions some Nations who are born

II.

Of Hermaphrodites.



Hermaphrodites, having the right breast of a Man, and the left of a Woman. *Plato* saith, that Mankind began by Hermaphrodites; our first Parents being both Male and Female, and that having then nothing to desire out of themselves, the Gods became jealous of them, and divided them into two; which is the reason that they seek their first union so passionately, and that the sacred tie of Marriage was first instituted. All which *Plato* undoubtedly learn'd out of *Genesis*; For he had read where 'tis said, (before *Eve's* formation, or separation from *Adam* is mention'd) *That God created Man, and that he created Male and Female.*

The Second said, That Natural Reason admits not Hermaphrodites; for we consider not those who have onely the appearances of genital parts which Nature may give them, as to Monsters two Heads, four Arms, and so of the other parts, through the copiousness of matter; but those who have the use and perfection of the same, which consists in Generation. For Nature having never put into the same subject an internal and radical principal of two contrary desires, as that of Man is to that of Woman, (the one consisting in action, the other in passion; the one in giving, the other in receiving) they cannot belong to one single individual; which should also be both Agent and Patient, contrary to the common Axiom founded upon the first Principle, that a thing cannot *be* and *not be* at the same time. Moreover, the qualities of the Genitures being contrary, that of the Woman cold and moist, and that of the Man hot and dry, they cannot meet in the same subject in so excellent a degree as is requir'd to generation. For the strength divided is never so vigorous as united, especially when its subjects are different. No Hermaphrodites ever us'd both sexes perfectly, but at least one of them weakly and abusively; and consequently, they are justly punish'd by the Laws. For were both parts equally fit for Generation, 'twere contrary to policy to hinder them from using the same, propagations being the chief Nerves of a State. But these people are oblig'd to make choice of one Sex, that by this election it may be known which they exercise best, and may be prohibited the abuse of the other.

The Third said, There's nothing in Nature so disunited, but is rejoyn'd by some *medium*. As there are Spirits apart, and Bodies apart, so there are animated Bodies consisting of both. Amongst beasts, Leopards, Mules, Doggs, and many others, partake of two different Natures; the Bat is between a beast and a bird, as Frogs, Ducks, and other amphibious creatures, partly Fish, and partly Terrestrial Animals. The *Bonaretz* is a plant and an animal; the Mushrome is between earth and a plant. So since there is Man and Woman, there may also be some nature containing both. As to the cause of them, besides nature's general incli-



inclination to reunite different things, it seems that the same which produces monsters produces also Hermaprodites, especially when the matter is more than needs a single Man or Woman, and too little for two. Nature herein imitating a Founder, who casting his metal in a mould, if there be any over-plus, it sticks to the Piece which he intended to form. Unless you had rather say, that if both the seeds be of equal power, and neither predominant over the other, the Formative Virtue then produces both sexes, which it would have distinguish'd into two Twins, had there been matter sufficient for two Twins. Whereunto also the Imagination of the Mother may also contribute. For since some have been born with Virilities sticking at the end of their Nose, and other places of the Countenance, Nature seems less extravagant when she places them in their true situation; there being no likelihood, in the Astrologers account, that the conjunction of *Mercury* and *Venus* in the eight house (which they assign to births) is the cause hereof.

The Fourth said, That Hermaphrodites being of those rare and extraordinary effects, which fall no more under Law than under Reason, 'tis very difficult to assign the true natural causes of them. Yea, if there be nothing less known than forms, and their original, even when Nature acts regularly, we cannot but be more at a loss in the combinations of forms and species, and coupling of sexes, which are deviations from the rule of Nature. Hermaphrodites, who have both sexes, are of four sorts; for they have Virilities in the ordinary place, and muliebilities either in the *perinaeum*, or the *scrotum*; or else the feminine parts being in their right place, the masculine appear above them, as is seen many times in Goats; or lastly, the Virilities lying hid in the middle of the other, at length come forth, as has hapned to many Girls and Women turn'd into Men; as to *Marie Germain*, by the relation of *Montagne*; to *Arescon*, a Native of *Argos*, who was surnam'd *Arescusa*, according to *Martianus*. And *Hippocrates* affirms, in 6. *Epid.* that a Woman nam'd *Phaetusa*, who after she had had Children by her Husband *Pytheus* the Abderite, this her Husband being long absent from her, she came to have a beard, and the other badges of virility. The same he also testifies to have hapned to *Namyssia*, the wife of *Gorippus*, in the Isle of *Thasus*. Of which effects we shall easily find the reason, if we say, with *Galen*, that Woman is an imperfect Animal, and a fragment of Mankind; and so 'twill be no wonder to see a Woman become a Man, then to see all other things acquire the perfection due to their Nature, which they ought to attain, lest their inclination thereunto be in vain. Moreover, 'tis certain, that a Woman desires a Man, as Matter doth Form; Power, Act; Imperfection, Perfection; Deformity, Beauty; in a word, the Female the Male; Nature affording us many examples of these changes of sexes, and metamorphoses.

So



So Metals and Elements are turn'd one into another ; Wheat into Cockle ; Rye into Wheat ; Barley into Oats ; Origanum into Wild Thyme ; Sifymbrium into Mint. Which caus'd *Anaxagoras* to say, That every thing is in every thing. According to which principle, the Male is actually in his Female ; and Hermaphrodites are no more, saving 'tis more conspicuous. So that the Ancients left us some truths under the figures of a god *Lunus* and the Moon, and of a bearded *Venus*, to whom the Dames of *Athens* sacrific'd in mens clothes.

The Fifth said, That the transmutation of sexes is impossible by reason of the diversity of the Genitories in Men and Women, which is greater then is here fit to be display'd. But those Maidens who have been thought to change their Sex, were Hermaphrodites, who retain'd the marks of the Feminine sex onely till a certain age, as that of Puberty, when the increased heat driving the Virilities forth did the same thing as it doth in Children, whom it enables to speak at a certain age. Unless you will say, that the Clitoris caus'd the mistake by its resemblance ; as it happens in that symptome call'd by *Ægineta*, *Cereosis*, or *Cauda*, which makes Tribades pass for Hermaphrodites. The change of Men into Women, (not like that of *Nero*, and *Sardanapalus*) but of *Tiresias* mention'd by the Poets, is more impossible ; unlesse they suppos'd that some causes destroying the heat of the Genital parts, and weakning the strength, the Virilities came to wither and retire inwards, as the Umbilical vessels do after the fœtus is born ; and that Nature conform'd to the cold temper superven'd in the whole body.

---

FINIS.

---







